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Bryan Wittine

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editor's note

It is a pleasure to present to subscribers and ATP members this special, "extra pages" *Journal* issue. Four important papers, including cur largest in twenty-seven years, and an extensive book review, appear in their entirety. The editor is grateful to the *JTP* staff and the contributing authors, whose efforts made this extended issue possible.

Ken Wilber, one of the most prolific and controversial transpersonal theorists, opens this *Journal* by expanding his evolving theory of consciousness and behavior into new territory—modern-day transpersonal studies. His article grows out of two recent books, *A Brief History of Everything* and its elaborately developed counterpart, *Sex*, *Ecology, Spirituality: The Spirit of Evolution*. This latter volume is also the subject of this issue's review by Bryan Wittine.

Writing from Fiji in the South Pacific is a new *JTP* author, Len Flier, who, like Wilber, is interested in the evolutionary development of consciousness. But Flier emphasizes moral conflict as a key ingredient in psychological change, and this raises significant implications for developmentalists and transpersonal practitioners.

The evolution of research in this field is also about to undergo a change. "A Survey of Measures of Transpersonal Constructs" brings together in one place descriptions of twenty carefully evaluated assessment tests, a table of fifty-four additional measures, and a massive supporting reference list. This is a "must-read" article for anyone contemplating transpersonal research. Douglas MacDonald and co-authors have made a major contribution in presenting this comprehensive and enormously useful study.

Another powerful tool that has recently become available is electronic. The world-wide Internet is now relevant to readers with transpersonal interests. As David Lukoff and co-authors show, new worlds of transpersonal information are increasingly available on the Internet. To see an example, please visit the *Journal* and Association Web-site listed on page 161.

Readers may notice that this issue's pages have been reformatted to include more text. This is a trial design to allow *JTP* to increase its publishing capacity. With so much happening in this field, our need for space is growing.

AN INFORMAL OVERVIEW OF TRANSPERSONAL STUDIES

Ken Wilber Boulder, Colorado

The Big Bang has made idealists out of anybody who thinks. First there was nothing, and then in less than a nanosecond the material universe blew into existence. These early material processes were apparently obeying mathematical laws that themselves, in some sense, existed prior to the Big Bang, since they appear to be operative from the very beginning. Of the two great and general philosophical orientations that have always been available to thoughtful men and women—namely, materialism and idealism—it appears that, whatever else the Big Bang did, it dealt a lethal blow to materialism.

But this idealistic trend in modem physics goes back at least to the twin revolutions of relativity and quantum theory. In fact, of the dozen or so pioneers in these early revolutions—individuals such as Albert Einstein, Werner Heisenberg, Erwin Schroedinger, Louis de Broglie, Max Planck, Wolfgang Pauli, Sir Arthur Eddington—the vast majority of them were idealists or transcendentalists of one variety or another. And I mean that in a rather strict sense. From de Broglie's assertion that "the mechanism demands a mysticism" to Einstein's Spinozist pantheism, from Schroedinger's Vedanta idealism to Heisenberg's Platonic archetypes: these pioneering physicists were united in the belief that the universe simply does not make sense—and cannot satisfactorily be explained—without the inclusion, in some profound way, of consciousness itself. "The universe begins to look more like a great thought than a great machine," as Sir James Jeans summarized the available evidence. And, using words that virtually none of these pioneering physicists would object to, Sir James pointed out that it looks more and more certain that the only way to explain the universe is to maintain that it exists "in the mind of some eternal spirit."

And what has that to do with psychology and psychiatry? Start with the fact that "mental health" has always been defined as, in some basic sense, being "in touch" with reality. But what if we look to the very hardest of the sciences in order to determine the nature of this bedrock reality—the reality that we are supposed to be in touch with—and we are rudely told that reality actually exists "in the mind of some

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eternal spirit"? What then? And if we don't believe these physicists, then whom are we to believe? If sanity is the goal, then exactly what reality are we supposed to be in touch with?

THE GHOST IN THE MACHINE

One of the great problems with this "spiritual" line of reasoning is that, unless one is a mathematical physicist wrestling daily with these issues, the conclusions sound too tenuous, too speculative, too "far-out" and even spooky. Not to mention the fact that all too many theologians, Eastern as well as Western, have used the stunning loopholes in the scientific account of nature to shove their versions of God into the limelight.

Which is why most modem working scientists, physicians, psychologists, and psychiatrists go on about their business without much of this strange "idealistic speculation" clouding their horizons. From cognitive behaviorism to artificial intelligence, from psychological connectionism to biological psychiatry-most researchers have simply remained very close to a materialistic explanation of mind, psyche, and consciousness. That is, the fundamental reality is assumed to be the material or physical or sensorimotor world, and mind is therefore believed to be nothing much more than the sum total of representations or reflections of that empirical world. The brain itself is said to be a biomaterial information processor, explainable in scientific and objective terms, and the information it processes consists of nothing but representations of the empirical world ("no computation without representation"). A material and objective brain simply processes a material and objective world, and the subjective domain of consciousness is, at best, an epiphenomenon generated in the wake of the physiological fireworks. The mind remains, hauntingly, the ghost in the machine. And whether that machine be computer or biomaterial processor or servomechanism matters not the least. The plaintive call of the dead and ghostly mind echoes down the imposing corridors of today's scientific research.

Typical of these objectivist approaches is Daniel Dennett's widely esteemed *Consciousness Explained*, which, others have less charitably pointed out, might better have been entitled *Consciousness Explained Away*. In all of these approaches, objective representations are sent scurrying through *connectionist networks*, and the only item that differs in most of these accounts is the exact nature of the objective network through which information bits hustle in their appointed rounds of generating the illusion of consciousness. All of these accounts—quite apart from certain undeniably important contributions—are nonetheless, in the final analysis, attempts by consciousness to deny the existence of consciousness, which is an extraordinary amount of causal activity for what after all is supposed to be an ineffectual vapor, a ghostly nothingness.

But say what we will, these empirical and objectivist accounts—analog and digital bits scurrying through information networks, or neurotransmitters hustling between dendritic pathways—are not how we *actually experience* our own interior consciousness. For when you and I introspect, we find a different world, a world not of bites and bits and digital specs, but a world of images and desires, hungers and pains, thoughts

and ideas, wishes and wants, intentions and hesitations, hopes and fears. And we know these interior data in an immediate and direct fashion: they are simply given to us, they are simply there, they simply show up, and we witness them to the extent we care to. These interior data might indeed be part of extensive chains of mediated events—that is very likely true—but at the moment of introspection, that doesn't matter in the least: my interior states are simply given to awareness, immediately, whenever I take the time to look.

And thus, even if we attempt to agree with the cognitivists and functionalists and behaviorists, even if we attempt to think of consciousness as nothing but information bits hopping through neuronal networks, nonetheless that *idea itself is* known to me only in an interior and direct apprehension. 1 experience that idea in an interior and immediate way; at no point do I actually experience anything that even remotely looks like an information bit dashing through a connectionist pathway. That is simply a concept, and I know that concept, as I know all concepts, in an interior and conscious apprehension. The objectivist approach to experience and consciousness, in other words, cannot even account for its own experience and consciousness: cannot account for the fact that digital bits are experienced, not as digital bits, but as hopes and fears.

INTERIOR AND EXTERIOR

In short, my interior and subjective experience is given to me in terms that simply do not match the objectivistic and empirical terms of functionalism or cognitivism or neuronal connectionism. My *subjective* and interior world, known by many names—consciousness, awareness, mind, psyche, idea, idealism—definitely appears to be at odds with my *objective* and exterior description of the world, also known by many names—material, biophysical, brain, nature, empirical, materialism. Inside vs. outside, interior vs. exterior, mind vs. brain, subjective vs. objective, idealism vs. materialism, introspection vs. positivism, hermeneutics vs. empiricism....

Small wonder that, almost from the inception of the human knowledge quest, theorists have generally fallen into these two rather different and apparently conflicting approaches to knowledge—interior vs. exterior. From psychology to theology, from philosophy to metaphysics, from anthropology to sociology, the human knowledge quest has almost universally consisted of these two broad paths.

(And, as we will soon see, one of the main tasks of transpersonal studies has been to honor and incorporate both of these general paths, and to explain how both can be *equally* significant and important in the understanding of human consciousness and behavior.)

On the one hand are those approaches that start with objective, empirical, and often quantifiable observables. These overall approaches—let us call them "exterior" or "naturalistic" or "empiric-analytic"—take the physical or empirical world as most fundamental, and all theorizing must then be carefully tied to, or anchored in, empirical observables. In *psychology*, this is classical behaviorism, and more recently, cognitive behaviorism (cognitive structures are granted reality only to the

extent they manifest in observable behavior). In *sociology*, this is classical positivism (as with the founder of sociology itself, August Comte); but also the extremely influential structural-functionalism and systems theory (from Talcott Parsons to Niklas Luhmann), where cultural productions are taken to be significant to the extent that they are aspects of an objective social action system. And even in *theology* and *metaphysics*, this naturalistic approach starts from certain empirical and material givens, and then attempts to *deduce* the existence of spirit on the basis of empirical realities (the argument from design, for example).

Arrayed against these naturalistic and empirical approaches are those that start with the immediacy of consciousness itself—let us call them the "interior" or the "introspection and interpretation" approaches. These approaches do not deny the importance of empirical or objectivist data, but they point out, as William James did, that the definition of the word "data" is "direct experience," and the only genuinely direct experience each of us has is his or her own immediate and interior experience. The primordial data, in other words, is that of consciousness, of intentionality, of immediate lived awareness, and everything else, from the existence of electrons to the existence of neuronal pathways, are deductions away from immediate lived awareness. These secondary deductions may be very true and very important, but they are, and will always remain, secondary and derivative to the primary fact of immediate experience.

Thus, in psychology, where the objectivist approach produces varieties of behaviorism, the subjectivist approach shows up in the various schools of depth psychology, such as psychoanalysis, Jungian, Gestalt, phenomenological-existential, and humanistic—not to mention the vast number of contemplative and meditative psychologies, East and West alike. All of these traditions take, as their starting point, immediately apprehended interior states and direct experiential realities, and they anchor their theories in those immediate data.

These schools are thus interested, not so much in *behavior*, as in the *meaning* and *interpretation* of psychological symbols and symptoms and signs. Freud's first great book says it all: *The Interpretation of Dreams*. Dreams are an interior and symbolic production. But all *symbols* must be *interpreted*. What is the *meaning* of *Hamlet*? of *War and Peace*? of your dreams? of your life? And the introspective and interpretive schools of psychology are attempts to help men and women interpret their interiors more accurately and more authentically, and thus to gain an understanding and a meaning for their actions, their symptoms, their distresses, their dreams, their lives.

In *sociology*, the subjectivist approach shows up in the immensely influential schools of hermeneutics and interpretive sociology ("hermeneutics" is the art and science of interpretation). And once again, in contrast to the objectivist approaches, which are interested in *explaining* empirical behavior, the interpretive approaches in sociology are interested in *understanding* symbolic productions. Not "How does it *work?*," but "What does it *mean?*"

Take the Hopi Rain Dance, for example. A typical objective functionalist approach attempts to explain the existence of the Dance by seeing it as a necessary aspect of the integration of the social action system. The Dance, in other words, is performing a behavioral function in the social system as a whole, and this function—which is

generally unknown to the natives—is said to be the preservation of the autopoietic self-maintenance of the social action system (e.g., Parsons).

The hermeneutic approach to sociology, on the other hand, seeks instead to take the view of the cultural native and to understand the Dance *from within*, as it were, in a sympathetic stance of mutual understanding. And what the interpretive sociologist (as "participant observer") finds is that the Dance is both a way to honor Nature and to sympathetically influence Nature. The interpretive sociologist thus concludes that, phenomenologically, the Dance is a pattern of connecting with a realm felt to be sacred. (Recent examples of hermeneutic sociology and anthropology include such influential theorists as Charles Taylor, Clifford Geertz, Mary Douglas; they often trace part of their lineage to Heidegger's hermeneutic ontology and Hans-Georg Gadamer's hermeneutic philosophy.)

In *theology* and *metaphysics*, the exterior and interior approaches likewise tend to diverge sharply. The objectivist approach starts with certain empirical and material facts, and attempts to deduce the existence of transcendental realities from these facts. St. Thomas Aquinas takes this approach when he gives most of his various arguments for the existence of God. He starts from certain natural facts and then attempts to show that these facts demand an Author, as it were. And right down to today, many physicists and mathematicians use the "argument from design" to conclude that there must some sort of Designer. This approach includes the recent (and quite popular) Anthropic Principle, which maintains that, because the existence of humans is incalculably improbable, and yet they exist, then the universe simply must have been following a hidden design from the start.

The subjective and introspective approach, on the other hand, does not attempt to prove the existence of Spirit by deduction from empirical or natural events, but rather turns the light of consciousness directly onto the interior domain itself—the only domain of direct data—and looks for Spirit in the disclosures of that data. Meditation and contemplation become the paradigm, the exemplar, the actual practice upon which all theorizing must be based. The God within, not the God without, becomes the beacon call. (In the West, this is the path laid out preeminently by Plotinus and St. Augustine, which is why the great and enduring theological tension in the West has been between Augustine and Aquinas.)

In *philosophy* itself this is, of course, the colossal divide between the modem Anglo-Saxon and Continental approaches, a difference which both camps happily announce (while just as happily denouncing each other). The typical Anglo-Saxon (British and American) approach is empiric-analytic, begun principally by John Locke and David Hume, but made most famous in that Cambridge triumvirate of G. E. Moore, Bertrand Russell, and (early) Ludwig Wittgenstein. "We make pictures of (empirical) facts" announces Wittgenstein's *Tractatus*, and the aim of all genuine philosophy is the analysis and clarification of these empirical pictures of the empirical world. No empirical pictures, no genuine philosophy.

Which always struck the great Continental philosophers as impossibly naive, shallow, and even primitive. Beginning most notably with Immanuel Kant—and running, in various ways and different guises, through Schelling, Hegel, Nietzsche, Schopenhauer, Heidegger, Derrida, and Foucault—a dramatically different theme was an-

nounced: the so-called "empirical" world is in many important ways not just a perception but an interpretation.

In other words, the allegedly simple "empirical" and "objective" world is not simply lying around "out there" waiting for all and sundry to see. Rather, the "objective" world is actually set in subjective and intersubjective contexts and backgrounds that in many ways govern what is seen, and what *can* be seen, in that "empirical" world. Thus, genuine philosophy, they would all maintain in their various ways, is not merely a matter of making pictures of the objective world, but rather of investigating the structures in the subject that allow the making of the pictures in the first place. Because, put bluntly, the mapmaker's fingerprints are all over the maps he makes. And thus the secret to the universe is not just in the objective maps but in the subjective mapmaker.

The fact that both of these approaches—the exterior and the interior, the objectivist and the subjectivist—have aggressively and persistently existed in virtually all fields of human knowledge ought to tell us something—ought to tell us, that is, that both of these approaches are profoundly significant. They both have something of incalculable importance to tell us. And transpersonal studies are, beginning to end, dedicated to honoring and incorporating both of these profound approaches in the human knowledge quest.

TO HONOR THESE TRUTHS

If we look at all the examples that I just gave of the different types of approaches to the knowledge quest, we will find that they actually fall into not just two, but four, large camps, because both the *interior* and the *exterior* approaches can be subdivided into *individual* and *collective*.

In other words, any phenomenon can be approached in an interior and exterior fashion, and also as an individual and as a member of a collective. And there are, already in existence, major and quite influential schools in each of those four large camps. I have included a table (see Figure 1) with some well-known theorists in each of these four camps. The upper-left is the interior of the individual (e.g., Freud). The upper-right is the exterior of the individual (e.g., behaviorism). The lower-left is the interior of the collective (e.g., the shared cultural values and worldviews explored by interpretive sociology). And the lower-right is the exterior of the collective (e.g., the objective social action system studied by systems theory).

As an example covering all four of these domains, let us take a single thought, say the thought of going to the grocery store. When I have that thought, what I actually experience is the thought itself, the interior thought and its meaning—the symbols, the images, the idea of going to the grocery store. That's the upper-left, the interior of the individual.

While I am having this thought, there are, of course, correlative changes occurring in my brain—dopamine increases, acetylcholine jumps the synapses, beta brainwaves

	INTERIOR • Interpretive • Hermeneutic • Consciousness	EXTERIOR • Monological • Empirical, positivistic • Form	
INDIVIDUAL	Freud	B.F. Skinner	
	C.G.Jung	John Watson	
	Piaget	John Locke	
	Aurobindo	Empiricism	
	Plotinus	Behaviorism	
	Gautama Buddha	Physics, biology, neurology, etc.	
COLLECTIVE	Thomas Kuhn	Systems Theory	
	Wilhelm Dilthey	Talcott Parsons	
	Jean Gebser	Auguste Comte	
	Max Weber	Karl Marx	
	Hans-Georg Gadamer	Gerhard Lenski	

increase, or whatnot. Those are observable behaviors in my brain. They can be empirically observed. And that's the upper right.

Notice that, even though my brain is "inside" my organism, it is still not part of my actual interior awareness. In fact, I can't even see my brain without cutting open my skull and getting a mirror. My brain is an objective, physical, biomaterial organ, known in an objective and empirical manner (upper right). But I know my mind, my consciousness, in an immediate and direct and interior fashion (upper left). When I experience the thought of going to the grocery store, I do not say, "Wow, what a dopamine day"; rather, I experience the thought in its own terms, with its own contours. The brain is seen objectively, the mind is experienced subjectively. We might eventually find that they are indeed two different aspects of the same thing, or that they are parallel, or dualist, or interactionist, or whatever, but the crucial point for now is that, in any case, neither can be reduced to other without remainder, because whatever else might be said, they each have a drastically different phenomenology.

To return to the internal thought itself (upper left): notice that it only makes sense in terms of my cultural background. If I spoke a different language, the thought would be composed of different symbols and have quite different meanings. If I existed in a primal tribal society a million years ago, I would never even have the thought "going to the grocery store." It might be, "Time to kill the bear." The point is that my thoughts themselves arise in a *cultural background* that gives texture and meaning and context to my individual thoughts, and indeed, I would not even be able to "talk to myself" if I did not exist in a community of individuals who also talk to me.

So the cultural community serves as an *intrinsic background* and *context* to any individual thoughts I might have. My thoughts do not just pop into my head out of

nowhere; they pop into my head out of a cultural background, and however much I might move beyond this background, I can never simply escape it altogether, and I could never have developed thoughts in the first place without it. The occasional cases of a "wolf boy"—humans raised in the wild—show that the human brain, left without culture, does not produce linguistic thoughts on its own.

In short, my individual thoughts only exist against a vast background of cultural practices and languages and meanings and contexts, without which I could form virtually no individual thoughts at all. And that's the lower-left, the interior of the collective, the intersubjective space of shared cultural contexts.

But my culture itself is not simply disembodied, hanging in idealistic mid-air. It has *material components*, much as my own individual thoughts have material brain components. All *cultural* events have *social* correlates. These concrete social components include types of technology, forces of production (horticultural, agrarian, industrial, etc.), concrete institutions, written codes and patterns, geopolitical locations, and so on. That's the lower-right, the social action system. And these concrete material components—the actual *social system*—are crucial in helping to determine the types of cultural worldview, within which my own thoughts will arise.

So my supposedly "individual thought" is actually a phenomenon that intrinsically has (at least) these four aspects to it—intentional, behavioral, cultural, and social. And around the holistic circle we go: the social system will have a strong influence on the cultural worldview, which will set limits to the individual thoughts that I can have, which will register in the brain physiology. And we can go around that circle in any direction. They are all interwoven. They are all mutually determining. They all cause, and are caused by, the others, in concentric spheres of contexts within contexts indefinitely.

1 am not going to make a long and drawn-out argument for this, but simply take it as plain fact that the persistent existence of these four large camps in the knowledge quest is evidence enough that none of them can be totally reduced to the others. Each approach is giving us, as it were, one comer of the Kosmos. Each is telling us something very important about various aspects of the known world. And none can be reduced to the others without aggressive and violent rupture, distortion, dismissal.

In my opinion, these four large camps of human knowledge exist precisely because these four aspects of human beings arc very real, very persistent, very profound. And one of the aims of general transpersonal studies is to honor and incorporate each of these extraordinary domains—intentional, behavioral, cultural, and social.

THE VALIDITY OF TRANSPERSONAL CLAIMS TO KNOWLEDGE

Each of these "four quadrants," in fact, has its own particular type of truth or type of "validity claim"—the ways in which it goes about accumulating and validating its data and its evidence. I have given a brief summary of these in Figure 2. And to say that none of these quadrants can be reduced to the others is to say that none of their respective truths can be dismissed or reduced, either.

Here are some quick examples of the different validity claims, or "types of truth," going around the four quadrants in Figures 1 and 2.

FIGURE 2						
	INTERIOR Left Hand Paths		EXTERIOR Right Hand Paths			
	SUBJECTIVE		OBJECTIVE			
INDIVIDUAL	truthfulness		truth			
	sincerity		correspondence			
	integrity		representation			
	trustworthiness		prepositional			
		I	it			
		we	it			
COLLECTIVE	justness		functional fit			
	cultural fit		systems theory web			
	mutual understanding		structural-functionalism			
	rightness		social systems mesh			
	INTERSUBJECTIVE		INTEROBJECTIVE			

Truth

The type of truth found in the upper-right quadrant is known variously as representational, propositional, or correspondence. In propositional truth, a statement is said to be true if it matches an objective fact. "It is raining outside" is said to be a *true* statement if it actually matches the facts at that moment. Propositions are tied to single, empirical, objective observables, and if the propositions match, they are said to be true. In other words, if the *map* matches the *territory*, it is said to be a true representation or a true correspondence ("We make pictures of facts"). Most people are quite familiar with this type of truth. It guides much of empirical science, and indeed much of our everyday lives. So common is propositional truth that it is often just called "truth" for short.

Truthfulness

In the upper-left quadrant, on the other hand, the question is not, "Is it raining outside?" The question here is, When I tell you it is raining outside, am I telling you the truth or am I lying? Not, does the map match the territory?, but can the mapmaker be trusted?

Because here, you see, we are dealing, not so much with exterior and observable behavior but with interior states, and the *only* way you and I can get at each other's interiors is by dialogue and interpretation. If I want to actually know, not simply your

behavior, but how you are feeling, or what you are thinking, then 1 must talk to you, and I must interpret what you say. And yet, when you report to me your inner status, you might be lying to me. Moreover, you *might be lying to yourself*.

And with the fact that you might be lying to yourself, we step into the whole realm of depth psychology in general. The validity claim here is not so much whether my statements match exterior facts, but whether I can *truthfully* report on my own inner status.

For, according to virtually all schools of depth psychology, "neurosis" is, in the broadest sense, a case of being out of touch with one's true feelings, or one's actual desires, or one's authentic inner state. At some point in development, most of these schools maintain, the person began to deny, repress, distort, conceal, or otherwise "lie" to himself about his own interior status; he began to misinterpret his subjective condition. And these misinterpretations, these concealments, these fictions, begin to cloud awareness in the symbolic form of painful symptoms, telltale traces of the telltale lie.

And thus for these schools, therapy is first and foremost an attempt to get in touch with—and more accurately and *truthfully interpret*—one's interior states, one's symptoms, symbols, dreams, desires. A more accurate and faithful *interpretation* of the person's distresses helps the person to understand his otherwise baffling symptoms, helps him to see their *meaning*. And thus the person can become less opaque to himself, more transparent and open and undefended.

Thus, according to the schools of depth psychology, the individual's painful symptoms were generated by a misinterpretation, a concealing, a dynamic and forceful hiding, a "lying" about one's interior state; and a more truthful, faithful, and appropriate interpretation opens the depths in an individual in a more meaningful and transparent fashion, thus lessening the painful symptoms. Not so much *objective truth* as *subjective truthfulness*: and there is the validity claim of the upper-left quadrant.

(Incidentally, when it comes to therapy, an "all-level, all-quadrant" approach would certainly not neglect the behavioral and pharmacological therapies of the upper-right quadrant. We are simply, at the moment, discussing each quadrant in turn, with its distinctive validity claim and type of truth.)

Notice also that, for example, the phenomenology of meditative states depends entirely upon the validity claim of subjective truthfulness, which is a totally different approach from the objective physiology of meditative states. That is, if you are interested in the neurophysiological changes that occur during meditation, you can hook me up to an EEG machine and monitor my brain states, no matter what I say about them. You simply use empirical and objective truth to map my brain physiology; you don't even have to talk to me. The machine will record what is happening in my brain, whether I am lying or not.

But if you want to know what is actually going on in my awareness, in my mind, then you are going to have to ask me and talk to me—the approach is dialogical and

intersubjective, not monological and merely empirical. When the needle jumps on the EEG machine, what I am experiencing? Am I seeing a brilliant interior illumination that seems to carry a compassionate depth and warmth? Or am I thinking of new ways to rob the local liquor store? The EEG machine will not, and cannot, tell you.

And in the quest for this type of interior truth, the validity claim is truthfulness, trustworthiness, sincerity (upper left). If I am being insincere in my reports, you will not get an accurate phenomenology of my interior states at all, but only a series of deceptions and concealments. Moreover, if I have already thoroughly *lied to myself*, I will honestly believe I'm telling the truth, and absolutely nothing on the EEG machine will be able to spot this. So much for empirical tests.

Thus, meditative physiology relies on objective data guided by the yardstick of propositional truth, whereas meditative phenomenology relies on subjective data guided by the yardstick of truthfulness; and we can see a striking example of the upper-right and upper-left approaches to consciousness, with their different but equally important validity claims.

Functional Fit

The two lower quadrants (interior-collective and exterior-collective) deal not merely with the *individual* but with the *collective* or communal. As we saw with the example of the Hopi Rain Dance, the lower-right camps approach the communal from an exterior and objective stance, and attempt to explain the status of the individual members in terms of *their functional fit* with the objective whole. That is, this approach attempts, with its validity claim, to situate each and every individual in an objective network that in many ways determines the function of each part. The truth, for these lower right approaches, is found in the objective intermeshing of individual parts, so that the objective, empirical whole—the "total system"—is the primary reality. And it is the objective behavior of the overall social action system, considered from an empirical stance, that forms the yardstick by which truths in this domain are judged. Its validity claim, in other words, is *functional fit*, so that each proposition must be tied to the intermeshing of the total system or network.

We all know this as standard systems theory, in its many guises. And when we hear theories about Gaia (and usually the Goddess), or about global networks and systems, or about "new paradigms" that emphasize "holistic networks," or dynamic processes all interwoven into the great empirical web of life—these are all approaches that emphasize the lower-right quadrant: observable and empirical processes seamlessly intermeshed in functional fit.

Justness

Where the lower-right approaches attempt to explain how objects fit together in a functional whole or total web of empirical processes, the lower-left approaches attempt instead to understand how *subjects* fit together in acts of *mutual understanding*.

In other words, if you and I are going to live together, we have to inhabit, not just the same empirical and physical space, but also the same intersubjective space of mutual recognition. We are going to have to fit, not just our bodies together in the same physical space, but our subjects together in the same cultural, moral, and ethical space. We are going to have to find ways to recognize and respect the rights of each other and of the community, and these rights cannot be found in objective matter, nor are they simply a matter of my own individual sincerity, nor are they a matter of functionally fitting together empirical events: they are rather a matter of fitting our minds together in an intersubjective space that allows each of us to recognize and respect the other—not necessarily *agree* with each other, but *recognize* each other—the opposite of which, put simply, is war.

We are interested, that is, not only in the truth, not simply in truthfulness, and not merely in functional fit: we are interested in justness, rightness, goodness, and fairness.

This *intersubjective space* (our commonly shared background contexts and world-views) is a crucial component of the human being, without which our individual subjective identities could not even exist, and without which objective realities could not even be perceived. Moreover, this intersubjective strand develops and unfolds, just as the other quadrants do. (And thus a comprehensive theory of human consciousness and behavior will want to take all of these quadrants—and their development—into careful account. And this, 1 will argue, is a crucial aspect of transpersonal studies.)

Notice that both of the collective approaches are equally *holistic*, but the social sciences tend to approach the whole from without in an objective or empirical stance, whereas cultural hermeneutics tend to approach the whole from within in an empathetic grasp. The former have a validity claim of functional fit or systems-mesh, an interobjective fit of each and every objective process with each and every other. The latter have a validity claim of cultural fit or mutual recognition, the intersubjective mesh that leads not to objective systems interlinking, but to human beings reaching mutual understanding. In other words, exterior and interior holism.

(It might be obvious that most theorists who call themselves "holistic" are ironically only exterior holists, an imbalance we need not champion. As of yet, there has historically been no "holism" that actually embraces all four quadrants in all their levels, and I will argue that this is one of the central aims of general transpersonal studies.)

The significant point is that each of these four validity claims has its own type of evidence and data, and thus particular assertions within each claim can be *adjudicated*—that is, can be confirmed or denied, justified or rebuffed, validated or rejected. Accordingly, each of these claims is open to the all-important *fallibilist criterion* of genuine knowledge.

We are all familiar with how fallibilism works in empirical sciences: maps and models and pictures that do not match empirical facts can eventually be dislodged by

further facts. But the same fallibilism is at work in all of the genuine validity claims, which is precisely why *learning* can occur in all four quadrants: mistakes are dislodged by further evidence in those quadrants.

For example, *Hamlet* is an interpretive, not an empirical, phenomenon, and yet the statement, "*Hamlet* is about the joys of war," is a false statement—it is a bad interpretation, it is wrong, and it can be thoroughly *rejected* by the community of those who:

- 1) perform the *injunction* or the *experiment* (namely, read the play called *Hamlet*);
- 2) gather the interpretative *data* or apprehensions (study the meaning of the play in light of the total available evidence); and
- 3) compare this data with others who have completed the experiment (*consensual* validation or rejection by a community of the adequate).

Those three strands of all genuine knowledge accumulation (injunction, data, confirmation) are present in all of the validity claims, which themselves are *anchored* in the very real intentional, behavioral, cultural, and social domains of human beings. In other words, these very real domains ground our quests for truthfulness, truth, justness, and functional fit, each of which proceeds by the checks and balances of injunction, data, and confirmation.

Thus, the epistemological claims of transpersonal studies are, like any other valid knowledge claims, thoroughly grounded in experiment, data accumulation, and consensual justification.

I, WE, AND IT

You can see all four of these equally important validity claims or "types of truth" listed in Figure 2. And you might also notice that I have written the words "I," "we," and "it" in the comers of the four quadrants. The reason is that each of these quadrants is described in a different language. That is, they each have a different but quite valid phenomenology, and thus each of them is natively described in a different language.

Thus, the events and data found in the upper-left quadrant are described in "I" language. The events and data of the lower-left quadrant are described in "we" language. And both of the right-hand quadrants, because they are empirical and exterior, can be described in "it" language. Thus, the four quadrants can be simplified to three basic domains: I, we, and it.

Because none of the quadrants can be reduced to the others, likewise none of these languages can be reduced to the others. Each is vitally important and forms a crucial part of the universe on the whole—not to mention a vital part of a comprehensive understanding of the psychology and sociology of human beings. Here are just a few of the important ingredients of these three major domains of I, we, and it:

I (Upper Left)—consciousness, subjectivity, self, and self-expression (including art and aesthetics); truthfulness, sincerity.

We (Lower Left)—ethics and morals, worldviews, common context, culture; intersubjective meaning, mutual understanding, appropriateness, justness.

It (Right Hand)—science and technology, objective nature, empirical forms (including brain and social systems); propositional truth (in both singular and functional fit).

Science—empirical science—deals with objects, with "its," with empirical patterns. Morals and ethics concern "we" and our intersubjective world of mutual understanding and justness. Art and aesthetics concern the beauty in the eye of the beholder, the "I."

And yes, this is essentially Plato's the Good (morals, the "we"), the True (in the sense of propositional truth, objective truths or "its"), and the Beautiful (the aesthetic dimension as perceived by each "I").

These three domains are also Sir Karl Popper's rather famous distinction of three worlds—objective (it), subjective (I), and cultural (we). Many people, myself included, consider Jurgen Habermas the world's foremost living philosopher, and these three great domains correspond exactly with Habermas's three validity claims: objective truth, subjective sincerity, and intersubjective justness.

Of enormous historical importance, these three domains showed up in Kant's immensely influential trilogy—*The Critique of Pure Reason* (objective science), *The Critique of Practical Reason* (morals), and *The Critique of Judgment* (aesthetic judgment and art).

Even into the spiritual levels of development, these three domains show up as, to give only one example, the Three Jewels of Buddhism, namely: Buddha, Dharma, and Sangha. Buddha is the enlightened mind in each and every sentient being, the I that is no-I, the primordial awareness that shines forth from every interior. Buddha is the "I" or the "eye" of Spirit. Sangha is the community of spiritual practitioners, the "We" of Spirit. And Dharma is the spiritual truth that is realized, the "It" or "isness" or "thusness" of every phenomenon.

Dozens of other examples could be given, but that's the general picture of these great domains of I, we, and it. And this is obviously crucial for transpersonal studies, because any comprehensive theory of human consciousness and behavior will want to honor and incorporate all four quadrants, or these three great domains, each possessing a different validity claim and a quite different language. This is another example of the pluralistic, multimodal, and multidimensional approach that is a defining hallmark of transpersonal studies in general.

FLATLAND

Despite the resiliency of what we might call the Left-Hand approaches of introspection and interpretation and consciousness (approaches that honor the "I" and the "we"

domains), nonetheless there has been in the West, for the last three hundred years or so, a profound and aggressive attempt by modem science (and the exclusively Right-Hand approaches) to completely reduce the entire Kosmos to a bunch of "its." That is, the I and we domains have been almost entirely colonized by the it-domains, by scientific materialism, positivism, behaviorism, empiricism, and objectivistic-exterior approaches in general.

This entire Right-Hand imperialism, which in so many ways has been the hallmark of Western modernity, is known generally as *scientism*, which, as I would define it, is the belief that the entire world can be fully explained in it-language. It is the assumption that all subjective and intersubjective spaces can be reduced, without remainder, to the behavior of objective processes, that human and nonhuman interiors alike can be thoroughly accounted for as holistic systems of dynamically interwoven its.

Gross reductionism we all know about: it is the reduction of all complex entities to material atoms, which is gross indeed. But *subtle reductionism* is all the more widespread, insidious, and damaging. Subtle reductionism simply reduces every event in the Left-Hand to its corresponding aspect in the Right-Hand. That is, subtle reductionism reduces all I's and all we's to their corresponding empirical correlates, reduces them to its. Mind is reduced to brain; praxis is reduced to techne; interiors are reduced to bits of digital its; depth is reduced to endless surfaces roaming a flat and faded system; levels of quality are reduced to levels of quantity; dialogical interpretation is reduced to monological gaze—in short, the multidimensional universe is rudely reduced to flatland.

But precisely because human beings do indeed have these four different aspects—intentional, behavioral, cultural, and social—this "scientific" approach can seem to make a great deal of sense, because every interior event does indeed have an exterior correlate. (Even if I have an out-of-the-body experience, it registers in the empirical brain!) And thus it initially makes all the sense in the world to try to simplify the knowledge quest by allowing only empirical data and objective its.

But when you have finally finished reducing all I's and all we's to mere its, when you have converted all interiors to exteriors, when you have turned all depth into shiny surfaces, then you have perfectly gutted an entire Kosmos. You have completely stripped the universe of all value, meaning, consciousness, depth, and discourse—and delivered it up dried and desiccated, laid out on a marble slab of the monological gaze.

Consciousness indeed becomes the ghost in the machine, precisely because it has just committed suicide.

And thus we end up with Whitehead's famous summary of the modem scientific worldview (of subtle reductionism): "a dull affair, soundless, scentless, colorless; merely the hurrying of material, endlessly, meaninglessly." To which, incidentally, he added: "Thereby, modem philosophy has been ruined."

And it doesn't help that this subtle reductionism is often "holistic," because with subtle reductionism, the holism is always of the exterior variety alone: holistic and

dynamically interwoven its! Open any textbook on holistic systems theory or the new holistic scientific paradigm, and you will find an endless discussion of chaos theory, cybernetic feedback mechanisms, dissipative structures, complexity theory, global networks, systems interactions—all described in process it-language. You will find nothing substantial on aesthetics, poetry, beauty, goodness, ethical dispositions, intersubjective development, interior illumination, transcendental intuition, ethical impulses, mutual understanding, justness, or meditative phenomenology (so much for being "holistic"). All you will find, in other words, is a monochrome world of interwoven its, without so much as an acknowledgment of the equally important and equally holistic domains of the I and the we, the subjective and intersubjective spaces that allow objective systems to be perceived in the first place.

Thus, systems theory admirably fights gross reductionism, but is itself the prime example of subtle reductionism, of the "it-ism" that has so defined modernity. "Thereby, modem philosophy has been ruined." More to the point, so has modern psychology and psychiatry, to the extent they continue to reduce all I's and all we's to info-its running through neuronal it-pathways carried by it-neurotransmitters to it-goals. Your presence, your existence, your consciousness is not required. That these are often holistic and systems-oriented approaches is no solace at all: that's simply subtle reductionism at its worst: a flatland web of interwoven its.

But the existence of these objectivistic, empirical, systems it-approaches is not the problem. These approaches accurately and importantly report on the exteriors of various phenomena, and they are indispensable in that regard. The difficulty is when these approaches attempt to comer the market on truth, and to claim that the empirical it-domain is the only significant domain in existence. It is this aggressive imperialism and colonization of the I and the we domains by the monological it-approaches that we must everywhere resist, and resist in the name of other and equally honorable truths.

And remember: the one thing that the Big Bang has taught us is that a world of its cannot explain the universe at all. Somehow, intrinsically, unavoidably, the I and the we are also woven into the very fabric of the Kosmos itself. This assertion does not have to be "far-out" or spooky in the least. "In the mind of some eternal Spirit" simply gives us fair warning that a world of mere its is no world at all. Consciousness and form, subjective and objective, interior and exterior, Purusha and Prakritti, Dharmakaya and Rupakaya, are the warp and woof of a wondrous universe that makes precisely no sense whatsoever if either is dismissed.

THE PAIN OF DENIAL

In fact, it is fast becoming quite obvious that if any system of thought (from philosophy to sociology to psychology to religion) attempts to ignore or deny any of the four validity claims, then those ignored truths actually *reappear* in the system as an internal and massive self-contradiction.

In other words, if you refuse reality to any of these domains, then that denied quadrant will in fact *sneak into your system*—you will smuggle it into your philosophy—and there it will show up as a jolting contradiction.

I'll go around the quadrants and give a few simple examples of what happens to our theories of knowledge if we deny any of the quadrants. This is very important, I think, because not only orthodox but transpersonal studies have often been plagued by many of these lopsided fads:

Scientism

As we have seen, empiricists (and positivists and scienticians in general) deny constitutive reality to virtually all Left-Hand dimensions; only the Right Hand is real. All Left-Hand occasions are at best reflections or representations of the sensorimotor world, the world of simple location, the world of its, detected by the human senses or their extensions.

But "empirical objective knowledge" arises only because of, and in the space of, an intersubjective structure that allows the differentiation of subject and object in the first place. In Thomas Kuhn's now-famous formulation, scientific facts are embedded in cultural practices or paradigms. This does *not* deny the objective component of the knowledge; it denies that the knowledge is merely objective or innocently empirical. In other words, in order to *assert* that all truth is "strictly empirical," empiricists have to stand in intersubjective structures that their own theories cannot even account for. The linguistic assertion that all valid knowledge is empirical is not itself empirical, and thus in asserting their own position, they contradict themselves; the denied intersubjective quadrant retaliates with a sneak-attack! (This intersubjective component of empirical knowledge is the basis of many influential critiques, not just Thomas Kuhn's attack on simple empiricism, but also Piaget's cognitive-structural revolution, and Noam Chomsky's crucifixion of Skinnerian behaviorism in linguistics—to name a very few).

Social Constructivism

More recently we have the reverse attempt: to deny any form of objective truth and dissolve it into *social constructivism*. That is, with the extreme versions of social constructivism, there is an aggressive attempt to reduce all quadrants to the lower-left quadrant (i.e., an attempt to reduce all knowledge claims to intersubjective cultural constructions). This backfires immediately and spectacularly. In fact, not even Derrida and Foucault accept this extreme constructivism (although their American followers are always claiming that they do). Derrida now concedes the existence of transcendental signifieds; without them, he says, we couldn't even translate between various languages. And Foucault's own archaeology is a series of universal constants in human knowing, within which culturally relative variations are constructed.

But extreme constructivists claim that there is no such thing as objective *truth* at all, because our ideas are simply *constructed* according to various *interests*—usually power, but also various "isms" and various ideologies (sexism, racism, speciesism, etc.).

Yet the constructivists themselves claim that their stance is *true*. And this they cannot do without asserting a theory of truth that is not itself distorted by power or ideology.

In other words, they will have to acknowledge and admit the Right-Hand aspects of existence that ground correspondence claims of truth, for that is also an important aspect of all knowledge. Instead, they are simply claiming that it is objectively true that there is no objective truth at all.

Aspects of knowledge are indeed intersubjectively constructed; but those constructions are set in networks of subjective, objective, and interobjective realities that *constrain* the construction. We will never, for example, find a shared cultural worldview where apples fall upward or men give birth: so much for arbitrary constructivism.

No wonder that John Searle's most recent book is an aggressive attack on mere constructivism. He calls it *The Construction of Social Reality,* as opposed to "the social construction of reality," the point being that social reality is in part constructed on a given sensorimotor world that is then reflected in correspondence, so that it itself is not socially constructed. His point is that we can't even get to the constructed aspects of reality without also having a foundation in correspondence: both are irreplaceable.

Cultural Relativity

Cultural relativists, extreme pluralists, and multiculturalists are caught in a similar contradiction: The claim is made that all truths are relative, that there are and can be no universal truths

Unfortunately, that view itself is claiming to be universally true. It is making a series of *strong claims* that it insists arc true for *all* cultures (the relative nature of truth, the contextuality of claims, the social relativity of all categories, the historicity of truth, and so on). This view thus claims that there are no universal truths of any sort—except for its own, which is universal and superior in a world where nothing is supposed to be universal or superior at all.

This is yet another attempt to reduce all objective truth to intersubjective agreement, and it suffers the same fate: it cannot assert its own position without contradicting itself. It is maintaining that there are several objectively true things about all cultures—and this is correct, but only if we fully acknowledge some aspect of objective truth. Otherwise, the denied quadrant once again sneaks back into the system and explodes it from within, which is precisely what we see with such self-contradictory approaches.

Some aspects of culture are most definitely constructed, and some aspects are both relative and historically-bound. But many features of the human bodymind show universal commonalities across cultures. The human body everywhere has 208 bones, one heart, two kidneys. And the human mind everywhere has the capacity to produce images, symbols, concepts, and rules. The sturdy conclusion is that the human body and mind crossculturally share certain *deep structures* that, when they appear, are everywhere quite similar, but the *surface structures*—the actual manifes-

tations of these common traits—are indeed relative, culturally-bound, marked by historicity, and determined contingently. The human body might indeed have 208 bones wherever it appears, but not all cultures use those bones to play baseball.

Transpersonal studies attempt to acknowledge and honor the richness of cultural diversity in surface structures, while also pinpointing the common deep structures of the human family: neither monolithic universalism nor incoherent pluralism, but rather a genuinely universal pluralism of commonality-in-difference.

Aesthetics Only

We have recently seen a flurry of merely aesthetic theories of truth: whatever you happen to like, that is the final arbiter of truth. All objective, interobjective, and intersubjective truths are cheerfully reduced to subjective inclinations (all quadrants are reduced to the upper left). Personal taste alone is the arbiter of reality. I do my thing, you do yours. Nietzsche is always (incorrectly) accused of advocating this.

Integrating the aesthetic judgment (upper left) with truth and justness is absolutely mandatory, but a theory of knowledge that is merely aesthetic is simply inarticulate. Not only does it fail to deal with intersubjective goodness and justness, it trashes any objective aspects of any sorts of truths. And once again, as long as this aesthetic theory is totally silent and never utters its own views, it is fine. But as soon as it tries to explain why aesthetics alone works, it will smuggle in the other quadrants and end up contradicting itself. It will claim, at least implicitly, that what it is doing is true!, and moreover, *better* than your view, thus sneaking in both objective and intersubjective judgments, where they explode from within, scattering the landscape with performative contradictions.

And so on around the four quadrants. The point is that every human being has a subjective aspect (sincerity, truthfulness), an objective aspect (truth, correspondence), an intersubjective aspect (culturally constructed meaning, justness, appropriateness), and an interobjective aspect (systems and functional fit), and our different knowledge claims are *grounded* in these very real domains. And thus, whenever we attempt to deny any of these insistent domains, we simply end up, sooner or later, smuggling them into our philosophy in a hidden and unacknowledged fashion: the empiricists use interpretation in the very act of denying its importance; the extreme constructivists and relativists use universal truth in order to universally deny its existence; extreme aestheticians use beauty alone to claim moral goodness—and on and on and on. To deny any of these domains is, as it were, to be hoisted by our own petard and end up in a severe self-contradiction.

Transpersonal studies attempt instead to include the moment of truth in each of these approaches—from empiricism to constructivism to relativism to aestheticism—but, in stripping them of their claims to be the only type of truth in existence, releases them from their contradictions and places them, as it were, into a genuine rainbow coalition.

THE SPECTRUM OF CONSCIOUSNESS

Transpersonal studies in general are dedicated to an "all-level, all-quadrant" view of human consciousness and behavior. This broad and general field therefore includes approaches that range from transpersonal anthropology to transpersonal ecology, from transpersonal philosophy to transpersonal art, from transpersonal ethics to transpersonal sociology—covering all of the various levels and dimensions in the intentional, behavioral, cultural, and social aspects of human beings.

If transpersonal studies take the wide view, the more specific school of *transpersonal psychology* has historically taken as its fundamental starting point the upper-left quadrant, that of immediate lived experience, consciousness, introspection, and interpretation. But the fact that transpersonal psychology specializes in the intentional domain (of consciousness and immediate awareness), does not in any fashion mean that it ignores or denies the other equally significant domains (which are, in fact, directly taken up in general transpersonal studies).

But if for the moment we focus on the upper-left quadrant, what do we find?

One of the most spectacular of recent advances in human understanding has been a series of rigorous attempts to *map the entire phenomenology of the various states of human consciousness* (including, as well, realms of the human unconscious). This has been immeasurably aided by an intense, rigorous, controlled investigation of Eastern and other non-Western practices and approaches to awareness, including nonordinary states in general.

These various attempts are rapidly converging on a "master template" of the various stages, structures, and states of consciousness available to men and women (much as the Human Genome Project is finally mapping the entire sequence of human genes). By comparing and contrasting various multicultural approaches—from Zen Buddhism to Western psychoanalysis, from Vedanta Hinduism to existential phenomenology, from Tundra Shamanism to psychedelically altered states—these approaches have pieced together, as I said, a "master template"—a spectrum of consciousness—using the various approaches to fill in any gaps left by the others.

The evidence for the existence of this spectrum of consciousness is now so significant as to put it largely beyond serious dispute. That is, the existence of these various states of consciousness is based upon careful experimentation and consensual validation. From such gatherings of consensual data, firmly anchored in the appropriate validity claims, the spectrum of consciousness is constructed.

This spectrum ranges from instinctual to egoic to spiritual modes, from prepersonal to personal to transpersonal experiences, from subconscious to self-conscious to superconscious structures, from prerational to rational to transrational states. This gives us not only an ontology of levels of being, but also an epistemology of levels of knowing. Men and women, as the Christian mystics are fond of saying, have (at least) three eyes of knowing: the eye of flesh, which apprehends physical events; the eye of mind, which apprehends images and desires and concepts and ideas; and the eye of contemplation, which apprehends spiritual experiences and states.

Indeed, the upper-left quadrant has historically been studied as the Great Chain of Being, a concept which, according to Arthur Lovejoy, "has been the dominant official philosophy of the larger part of civilized humankind through most of its history." The Great Chain is the worldview that "the greater number of the subtler speculative minds and of the great religious teachers [both East and West] have, in their various fashions, been engaged in." Huston Smith, in his remarkable book *Forgotten Truth*, has demonstrated that all of the world's great wisdom traditions, from Taoism to Vedanta, Zen to Sufism, Neoplatonism to Confucianism, are based on the Great Chain—that is, based on some version of the overall spectrum of consciousness, with its levels of being and knowing.

Some postmodern critics, however, have claimed that the very notion of the Great Chain, since it is hierarchical, is somehow oppressive; it is supposed to be based on unpleasant "ranking" instead of compassionate "linking." But this is a rather unsophisticated complaint. First, the anti-hierarchical and anti-ranking critics are themselves engaged in hierarchical judgments of ranking—namely, they claim their view is *better* than the alternatives. In other words, they themselves have a very strong ranking system, it's just hidden and inarticulate (and perfectly self-contradictory).

Second, the Great Chain was actually what Arthur Koestler called a *holarchy:* a series of concentric circles or nests, with each senior level transcending but including its juniors. This is a ranking, to be sure, but a ranking of increasing inclusiveness and embrace, with each senior level including more and more of the world and its inhabitants, so that the upper or spiritual reaches of the spectrum of consciousness are absolutely all-inclusive and all-embracing—as we said, a type of radical universal pluralism.

Of course, any hierarchy—including the hierarchy that values "linking" as better than "ranking"—can be put to severe abuse, repressing or marginalizing certain values. But this condemns not hierarchies in general, but merely pathological or dominator hierarchies. As Riane Eisler has reminded us, there is a big difference between actualization hierarchies and dominator hierarchies; and the Great Chain was from its inception a profound actualization holarchy, quite apart from the abuses to which it was occasionally put. (I will return to these "social injustices" in a moment.)

But apart from such abuses, the great traditions *even at their best* still neglected several important items, items that these early investigators of the spectrum of consciousness could not, or at any rate did not, know. Two glaring deficiencies in the wisdom traditions especially deserve mention.

The first is that the very earliest stages of human development can play a decisive role in subsequent growth—Freud's pioneering work, for example. The great contemplative traditions were unexcelled in tracing human growth from mental and egoic modes to trans-mental and spiritual modes, but they were extremely weak in their understanding of the stages leading up to the mental-ego itself. In Jack Engler's memorable phrase, "You have to be somebody before you can be nobody"—that is, you must develop a strong and secure ego before you can transcend it; and whereas the great traditions were superb at the latter, they failed rather miserably at the former.

And a truly "full spectrum" approach to psychiatry and psychology would rigorously embrace both: the move from instinct to ego, as well as from ego to spirit.

Precisely because the spectrum of consciousness develops, modern-day researchers can bring to bear the vast arsenal of developmental research techniques to help elucidate the various developmental lines of consciousness itself. That is, we can now begin to trace the developmental unfolding of such lines as cognition, affect, moral sense, object relations, self-identity, modes of space and time, motivations and needs, and so on—and not just from pre-egoic to egoic modes, but also from egoic to transegoic modes. This gives transpersonal psychology and psychiatry the chance historically to be the first genuinely "full spectrum" model of human growth and development.

And likewise for *transpersonal psychotherapy*. Precisely because the spectrum of consciousness develops, various "mis-developments" can occur at any stage of this unfolding. As with any living entity, pathology can occur at any point in growth. Thus, the spectrum of consciousness is also a spectrum of different types of possible pathologies: psychotic, neurotic, cognitive, existential, spiritual. And transpersonal psychology and psychiatry have developed a sophisticated battery of treatment modalities that address these different types of pathologies.

The second major weakness of the great traditions is that they did not clearly recognize that the various levels of interior consciousness have correlates in the other quadrants. In other words, it is not simply, as the great traditions assume, that human beings have different levels—body, mind, soul, and spirit, for example—but *also* that *each* of those levels has four aspects—intentional, behavioral, cultural, and social. And this multidimensional grid—not simply "all-level" but "all-level, all-quadrant"—opens up the study of human beings in a rather dramatic and unprecedented fashion.

We can now, for example, begin to correlate states of meditative awareness with types of brainwave patterns (without attempting to reduce one to the other). We can monitor physiological shifts that occur with spiritual experience. We can follow the levels of neurotransmitters during psychotherapeutic interventions. We can follow the effects of psychoactive drugs on blood distribution patterns in the brain. We can trace the social modes of production and see the corresponding changes in cultural worldviews. We can follow the historical unfolding of cultural worldviews and plot the status of men and women in each period. We can trace the modes of self that correlate with different modes of techno-economic infrastructure. And so on around the quadrants.

Thus, modern-day *transpersonal studies* can do something about which the great traditions badly failed: they can take an "all-level, all-quadrant" approach, tracing the spectrum of consciousness not just in its intentional but also its behavioral, social, and cultural manifestations, thus highlighting the importance of a multidimensional approach for a truly comprehensive overview of human consciousness and behavior.

And finally, with these broader and more sophisticated tools of behavioral, developmental, and cultural analysis, we will also be able to more clearly spot those areas where the great traditions were all-too-embedded in the social injustices of the day, from sexism to speciesism to militarism to ethnocentrism.

In short, modern-day transpersonal studies have reconnected with the world's great wisdom traditions, honoring and incorporating many of their essential and pioneering insights, while, at the same time, adding new methodologies and techniques previously unavailable. This is multiculturalism in its best and deepest sense, cherishing cultural differences, but set in a truly universal context.

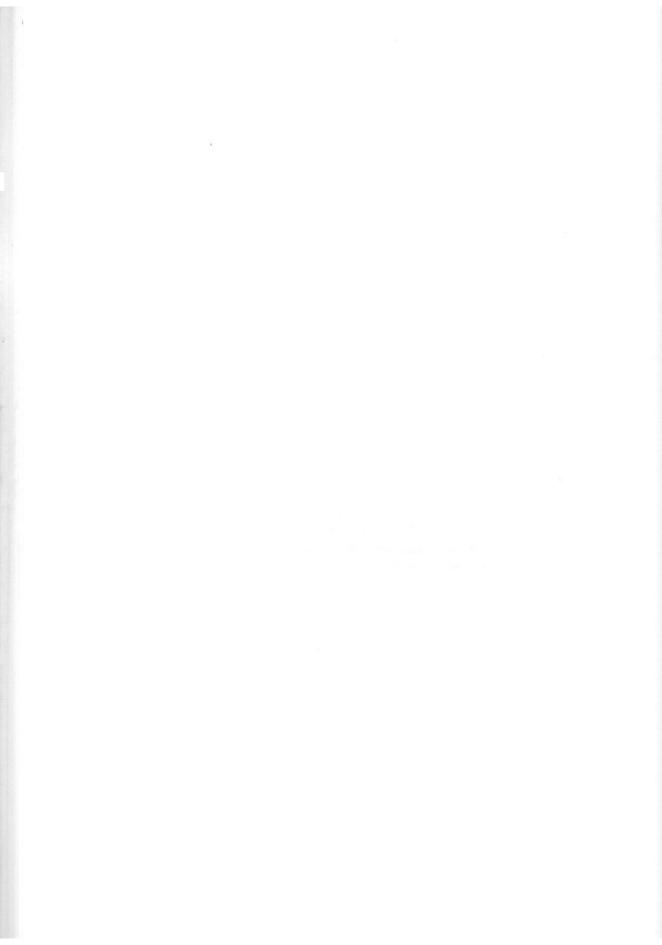
TO HONOR THAT PLEDGE

Transpersonal psychology and psychiatry are committed to a full-spectrum view of human growth and development. And transpersonal studies are dedicated to an all-level, all-quadrant approach, honoring the entire spectrum of consciousness, not just in the I-domain, but also in the we and the it domains, thus *integrating* art, morals, and science; self, ethics, and environment; consciousness, culture, and nature; Buddha, Sangha, and Dharma; the beautiful and the good and the true.

And who knows, we might, you and I just might, in the upper reaches of the spectrum of consciousness itself, directly intuit the mind of some eternal Spirit—a Spirit that shines forth in every I and every we and every it, a Spirit that sings as the rain and dances as the wind, a Spirit of which every conversation is the sincerest worship, a Spirit that speaks with your tongue and looks out from your eyes, that touches with these hands and cries out with this voice—and a Spirit that had always whispered lovingly in our ears: Never forget the true, and never forget the good, and never forget the beautiful.

And the transpersonal orientation, 1 think, embodies the modem and postmodern attempt to honor just that pledge.

(For a further discussion of these themes, as well as for references and bibliography, the reader is referred to *Sex, Ecology, Spirituality,* Boston: Shambhala, 1995, and the more popular version, A *Brief History of Everything,* Boston: Shambhala, 1996.)



DEMYSTIFYING MYSTICISM: FINDING A DEVELOPMENTAL RELATIONSHIP BETWEEN DIFFERENT WAYS OF KNOWING

Len Flier Suva, Fiji

As rivers lose name and form when they disappear into the sea, the sage leaves behind all traces when he disappears into the Ugh:. Percehing the truth, he becomes truth; he passes beyond all suffering. Beyond death, all the knots of his heart are loosed. — Upanishads¹

/ tell you, as truly as God is God and I am a man, if you were quite free from self, free from the highest angel, then the highest angel would be yours as well as your own self. This method gives self-mastery. — Meister Eckhart-

For thirty years, God was my mirror; now 1 am my own mirror. What / was I no longer am, for "1" and "God" are a denial of God's unity. Since 1 no longer am, God is his own mirror. He speaks with my tongue, and I have vanished. — Abu Yazid Al-Bistami³

Some say that my teaching is nonsense.

Others call it lofty but impractical.

But to those who have looked inside themselves, this nonsense makes perfect sense.

And to those who put it into practice, this loj'tiness has roots that go deep. —Lao-Tzu⁴

MYSTICISM VERSUS REASON

Poetry, revelation, and inspiration for billions, the words of the world's great mystics remain timeless, as fresh today as the day they were spoken. And (we might as well add) just as confusing. For, however often we repeat them, contemplate them, or meditate on them, it does not seem that we are able to understand them in the way that the masters meant them. Their words are a product of a different way of knowing that we are unable even to grasp, let alone share in. Frustrated, we turn back to the world that we know. But the optimism and promise of the words—boundless love, peace, and the vanquishing of fear—draw us back to them, over and over again.

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Some of us. Those of us who choose not mysticism, but reason; those of us with faith in the human ability to observe and to comprehend; those of us who appreciate poetry but trust facts, have sought our inspiration elsewhere. And we have found no lack of it. Filled with wonder and surprises around every comer, the natural world holds our imagination both personally, in countless laboratories late into the night, and collectively, in recent photographs from the Hubble space telescope revealing the birth of a distant star. What we would know about ourselves we find in the developmental psychologies of Freud, Erikson, and Piaget. Bliss is not a mystical state; it is a satisfaction that can come from a life well lived.

Which vision is real: mysticism or reason? Can the two be reconciled? "If the mystic knows something," challenges the man of reason, "why can't he explain it so that I can understand it?" Why, indeed? Such questions might be easier to answer if true mystics were more accessible. But there aren't many around, and those that *are* around tend to keep their mouths shut. "He who speaks, does not know," reminds Lao-Tzu, "and he who knows does not speak" (Mitchell, 1988, chap. 56).

Transpersonal psychology has set for itself the goal of constructing a paradigm that accounts for the full range of human consciousness. This means, among other things, reconciling reason with mysticism. In recognizing the value of religious traditions and what has been called the perennial philosophy (Walsh, 1993; Wilber, 1990), transpersonal psychology has opened up new avenues of inquiry into mysticism. Much of the research has proceeded along the lines of characterizing altered and meditative states of consciousness (Murphy & Donovan, 1989; Tart, 1983; Walsh, 1993; Walsh & Vaughan, 1993). Such states have been shown to be distinct and reproducible. An important and unanswered question, however, is how temporary and induced unitive states of consciousness, such as those experienced in meditation and peak experiences, are related to the apparently enduring and non-induced unitive perspectives of the religious mystics. Does a single-or even multiple-meditative or peak experience constitute mysticism? Clearly not. We would expect to see a change in the individual's normal waking consciousness-some kind of "high plateau," as Maslow (1968) termed it. But w hat is the nature of this high plateau, and how does an individual get there? And why do religious mystics insist that the transition to mystical knowing involves sacrifice and suffering? Meditative states and peak experiences are not characterized by suffering-indeed, the experience is ordinarily reported as being quite the opposite.

Observations such as these suggest that there is more to mysticism than can be explained in terms of transitory states of consciousness. It appears that structural development is required—development in what Wilber (1990) has termed *basic structures of consciousness*. Such structures are revealed in several stage theories of development, such as Lawrence Kohlberg's (1969; Kohlberg & Ryncarz, 1990) theory of moral development and James Fowler's (1981; 1991) theory of faith development, both of which place mysticism at the end of a chain of qualitatively distinct stages. This essay will describe and build upon a theory of basic structures introduced by Robert Kegan (1982; 1994). It will propose that the relationship between reason and mysticism is grounded in a *developmental* relationship between basic structures (or orders) of consciousness. It will also propose a specific mechanism for the *evolution* of consciousness—a mechanism that explains suffering. And,

hopefully, it will demonstrate that this model represents a more satisfactory explanation of mysticism than a model based on altered states.

DIFFERENT WAYS OF KNOWING

At the heart of the distinction between reason and mysticism is the assignment of meaning. Reason assigns meaning only to those ideas and observations that can be expressed in terms of pairs of opposites: hot vs. cold, good vs. bad, etc. Mysticism assigns meaning to that which is "beyond" reason; it holds dualistic distinctions to be (ultimately) meaningless. It seems that mysticism and reason represent two entirely different ways of *knowing*. In other words, it is not so much *what* is known that is different but *how* it is known.

Both Kohlberg and Fowler acknowledge a debt to the cognitive-developmental psychology of Jean Piaget, and it may help us if we, too, turn for a moment to this pioneering developmental psychologist. Piaget's elegant experiments revealed that there are qualitatively distinct ways of knowing that everyone experiences during childhood. A seven-year-old child, for example, has a different way of knowing than a four-year-old child. Piaget (1970) demonstrated this using glasses of water. After pouring equal volumes of water into two glasses, he would ask a child if the amounts were the same. The child would agree. Then he would take one of the glasses of water and pour it into a narrower glass and ask the child if the *amounts* of water were still the same. A four-year-old child would reply that the narrower glass has *more* water. In an effort to show the child that the amounts are really the same, Piaget would pour the water back into the original glass. However, the child would reply, "Yes, they are the same – *now*, but they weren't before."

Although an older child will disregard her perceptions and recognize that the amount of water is the same regardless of its appearance in the narrower glass, the younger child is not capable of this mental manipulation. The younger child makes meaning in terms of what she sees. The older child disregards what she sees and makes meaning in terms of what she knows: that the amount of water remains the same even though its appearance may change. The younger child's way of making meaning has come to be called *preoperational* and the older child's, *concrete operational*.

In the preoperational and concrete operational child, we have a parallel to the relationship between reason and mysticism. The preoperational child represents reason: she assigns meaning to what is obviously true. "The narrow glass has more water. Anyone can see that." The concrete operational child (imagine that she is the only one in the room) represents mysticism: she disregards what is obvious and pronounces that, in fact, there is *no difference* between the amount of water in the narrow glass and the wide glass. "Nonsense!" shout the preoperationalists (or something to that effect), and the debate is on. But it will never be resolved because preoperational thinkers cannot be "convinced" to think concrete-operationally; that is a cognitive leap that they will have to take on their own. This is, of course, not to suggest that *reason-able* people are preoperational and that mystics are concrete operational, but it does show *developmentally* how such a difference can arise.

Piaget also identified a third way of knowing, which he called *formal operations*. Formal operational children arc able to consider abstractions, whereas concrete operational children are only able to consider concrete examples. Most children shift to formal operations in their early teens. The difference between preoperational, concrete operational, and formal operational children is revealed in the following syllogism: "All purple snakes have four legs. I am hiding a purple snake. How many legs does it have?" The concrete-operational child, being unable to think out of the concrete, will politely suggest that you are talking nonsense because there *is* no such thing as a purple snake with legs (although you probably mean a lizard that changes color and she'd be happy to tell you about that). The formal-operational child, being capable of abstract reasoning, will see that despite the absurdity of the premises, a valid conclusion can be drawn: the presupposed snake has four legs. The preoperational child will have no problems with purple or leggy snakes and is as likely to say, "My brother has a snake" (Kegan, 1982).

CONSTRUCTIVE-DEVELOPMENTAL PSYCHOLOGY AND ULTIMATE REALITY

The distinguishing feature of Piaget's cognitive-developmental psychology is that individuals progress through qualitatively distinct stages in which their way of knowing becomes progressively more complex. It is not only that the seven-year-old knows *more* than the four-year-old: it is that she knows *differently*, in a more sophisticated way. The seven-year-old can see the mistake the four-year-old is making with the narrow glass of water, but the four-year-old cannot see it herself. It is as though the seven-year-old is able to step back and take a perspective on her perceptions. She can say, "The narrow glass *looks like* it has more water." The four-year-old, however, cannot do this. She can only say, "The narrow glass has more water." She is one with (or *embedded in*) her perceptions.

Piaget's cognitive-developmental psychology ends in adolescence with the emergence of formal operations. Thus it would not appear that it can help us understand the development of mystical thinking in adulthood. But Piaget's observations *have* suggested a possible developmental relationship between reason and mysticism. What remains is to define this relationship and find a mechanism by which the individual may progress from one to the other.

The constructive-developmental psychology of Robert Kegan (1982; 1994) may help us to do both. Kegan has broadened the ideas of Piaget to include not only cognition but personality, and he has extended them from adolescence into adulthood. What is basic to cognition and personality, according to Kegan, is the level of complexity at which an individual constructs his *subject-object relations*, where *object* refers to elements of knowing that can be reflected on or manipulated, and *subject* refers to elements of knowing that the individual is identified with or *embedded in*. In a subject-object relationship, the individual can distinguish himself from what is object, but he cannot distinguish himself from what is subject. Thus it may be said that the individual *has* objects, but he *is* subject. For example, Piaget's concrete-operational seven-year-old can take her own perceptions about the water as an *object* and reflect on them, saying in effect, "I know it looks like the narrow glass has more

water." The preoperational four-year-old can only take the water as object; her perceptions are still *subject*. She can only say, "The narrow glass has more water."

Kegan's psychology is *constructive* in the sense that reality is not "out there" waiting to be apprehended; the individual constructs it according to his subject-object balance. It is *developmental* in the sense that the individual's subject-object balance becomes progressively more complex. Kegan identifies five *orders of consciousness* which represent increasingly complex orders of subject-object relations. The first three are attained in childhood and subsume Piaget's cognitive stages. The final two are attained in adulthood, but, like Kohlberg's moral stages, not all adults attain them at the same time, nor do all adults reach the final order.

An order of consciousness is a general principle of organization, so one would expect that, when an individual develops a more complex order, the changes will be manifested across his whole experience, including thinking, feeling, and social relations. In fact, this is what happens. The change in cognition which Piaget termed concrete operations is accompanied by a drastic change in personality. Let us consider once again the four-year-old and the seven-year-old, this time in the realm of personality.

A typical four-year-old is an example of Kegan's first order of consciousness or, as he called it originally, the *impulsive balance*. He is, quite literally, a bundle of impulses. He is squirmy, has trouble sitting still, and at any moment he is liable to drop whatever he is doing and dart off to some new activity. After beginning a conversation with his parents, he is likely to interrupt it himself with an entirely unrelated thought: re-engaging them in a conversation he himself had started. A seven-year-old, however, is a remarkably different child. He is capable of sustained periods of attention, and he undertakes self-managed projects which he continues over long periods. Whereas the four-year-old child will frequently interrupt conversations he has begun himself, the older child will never do this.

It is apparent that the seven-year-old has succeeded in managing a part of himself that the four-year-old has not. He is not just "bigger" along the same lines as the four-year-old, but qualitatively "different." The difference is that the older child is operating at the second order of consciousness. Whereas the first child takes as object his sensations, the second child organizes his sensations into *durable categories*; the category itself being taken as object. One such durable category might be called "perceptions." Because he is able to consider his perceptions as an object, the second-order child is able to reflect on how water maintains its volume even though the volume appears to change. Another category might be called "impulses." Because he is able to consider his impulses as an object, he can reflect on them and control them. Whereas, to the first-order child, perceptions and impulses are subject, to the second-order child, they are object. Another way of looking at it is to say that the first-order child is *embedded* in his perceptions and impulses, whereas the second-order child has emerged from his embeddedness and can take these as object.

Kegan's model is elegant because it explains the transition to each new order of consciousness—even those that occur in adulthood—in terms of the same basic

motion: taking what is object and subsuming it to a higher structure which, itself, is then taken as object - or, to say the same thing more simply, taking what is subject and recognizing it as an object. This motion might be represented graphically as drawing a large circle around a group of smaller circles, but this does not convey the full complexity of the act. The individual's perspective is not that of looking down on a sheet of paper with a group of circles drawn on it; it is that of being on the paper within one of the circles. From this perspective, he would have difficulty seeing his own circle, let alone any of the other similar circles nearby. The situation is like that of a frog in a puddle trying to imagine the ocean. Another frog might come along and tell him about it, but until he is able to jump high enough to see his own puddle, he will imagine that he is already in the ocean. How, then, does the frog—if he is unable to see even his own puddle-jump out of it and see it as just one of many possible puddles? More importantly, what would motivate him to jump out of his puddle in the first place? Deep reflection reveals that there are only two things that could make a frog leave his puddle. The first is if the puddle dried up. The second is, of course, lady frogs.

It is probably no coincidence that Kegan's third order of consciousness is forged in early adolescence, for it *is*, at least in part, romantic relationships that reveal the limitations of second-order consciousness. In the second order, an individual is able to take his impulses as object, but he is still embedded in his own needs and desires. Although he recognizes that other people have needs and desires, too, these exist only in relation to *his*. Thus, morality at the second order is confined to a *tit-for-tat* style of fairness: "I get mine; you get yours." But as he is confronted with a relationship to another individual with similar interests, needs, and desires, the individual is led to consider that this other individual also has *feelings*. As his circle widens to encompass the needs and desires of the other individual, feelings—empathy, commitment, and self-consciousness—become the new order in which needs and desires are subsumed. Thus, morality at the third order is based on feelings and commitments: "We made a commitment; how would *you* feel if / broke it?"

To continue with the frog analogy, then, the new puddle is third-order consciousness. Of course our frog (perhaps this time a young lady frog), blissfully in love, does not see it as a puddle: she thinks she's found the ocean. Sometime in adulthood, though, the puddle begins to dry up. The drought comes in the form of conflicting commitments and expectations from so many relationships. She feels like everybody has a piece of her, but she doesn't have herself. She feels like she has no voice of her own and that she is subject to the demands of her husband, friends, parents, and herself, with no way to mediate them. The realization dawns that, if she has to live in this puddle any longer, she is going to kill herself. Thus motivated, and aided perhaps by friends, a job, or education, she begins to step out of the puddle and expand the circle of her knowing to take in *systems* of relationships. This is not easy, but if she succeeds, she emerges into fourth-order consciousness: independent, free-thinking, and secure; concerned with what other people think but not controlled by what they think.

Is this the ocean? Well, not yet. Even fourth-order consciousness—for some frogs, at least—eventually dries up. To see how this happens, let us again consider the

question of morality. In third-order consciousness, morality was based on commitment and mutual expectation within relationships. Thus, "The law is the law because we all commit to it." But in fourth-order consciousness, relationships are no longer seen as "ultimate reality." Ultimate reality is something higher than relationships; higher even than the law. Relationships are now subject to principles—life, justice, freedom—and so is the law. And when the law—or relationships—are in violation of these principles, then morality demands that the individual stand by the principle. This was the morality that led Henry David Thoreau, Mohandas Gandhi, and Martin Luther King to commit their acts of civil disobedience, and it was on this morality that Thomas Jefferson anchored *The Declaration of Independence*. Ultimate reality, then, in fourth-order consciousness, consists of principles. Very good. But what happens when *principles* conflict?

MORAL CONFLICT: THE ENGINE OF TRANSCENDENTAL EVOLUTION

We have followed Kegan's orders of consciousness up to the fourth order. Each successive order is a more complex subject-object relationship in which the old objects are subsumed in a larger category, which *itself* is taken as object. Another way of looking at this is to say that the old subject (or puddle) becomes the new object when the individual steps out of it. Each order of consciousness is a qualitatively different way of *knowing*. This is revealed in the morality of each order: in the second order moral issues are decided on the basis of fairness, in the third on commitment, and in the fourth on principle.

One thing that has been lacking in Kegan's system, however, is an explicit and compelling motivation for evolving new orders of consciousness. I have compared the situation to that of a frog in a puddle. What exactly is it—apart from lady frogs (which only works once)—that motivates him to jump out of his puddle and construct a more complex system of knowing? Kegan isn't specific. We might say that nature tends toward complexity, but this doesn't answer the question: Darwin has shown us that there has to be a *reason* for complexity—like competition and survival. Or, we might say that the development of consciousness is genetically programmed, but this denies the very principle of constructivism that serves Kegan's theory so well. Our solution, then, must be compelling, and it must be constructivist. I propose that *moral conflict* satisfies both of these conditions. Kegan and Kohlberg have shown that morality is an *outcome* of the subject-object balance; however, I propose that morality is not only an outcome but the very *engine* of the evolution of the subject-object balance itself.

How would this work? Consider, for example, the morality of the first order. The first-order child is embedded in his impulses, and, thus, his morality is also based on impulses: "What is right is what agrees with my impulses" (if you doubt me on this, ask a three-year-old). But what happens when impulses collide? The system blows up—literally—overload. There is no executive to mediate impulses, so the child-assystem crashes and reboots. And, although a computer is not creative enough to reconfigure itself so that this does not happen, a child *is* and he *does* reconfigure himself by constructing a second order of consciousness.

What about the other orders? Second-order morality is founded on needs and preferences, but needs and preferences can also conflict, especially in relationships. Thus, "I need what I prefer, but I also need my relationships." This moral crisis may not be acted out in such dramatic fashion as the first-order crisis, but it is surely acted out. It is equally painful as the first-order moral crisis, and it cries out for a solution. The solution comes not from choosing between one or the other need, but from transcending the conflict by constructing a new order of consciousness in which needs are taken as object. In the third order, a similar situation occurs. The moral crisis is in terms of conflicting expectations. The situation is ultimately resolved, not by choosing between them, but by transcending them with the construction of a fourth-order consciousness.

Ironically—to the rest of the world—each transcendent solution looks like an abandonment of responsibility. Thus, the first boy in the class to fall in love is seen by his peers as violating sacred principles. And the wife who masters her relationships and seeks her own career is viewed by family members—and perhaps even her husband—as abandoning her commitments. But this is how third-order consciousness looks when viewed from the second order, and how fourth-order consciousness looks when viewed from the third order. To boys embedded in second-order consciousness, a third-order consciousness with a morality based on empathy and commitment is *inconceivable*—if they could conceive it, they would be there themselves. The same can be said for in-laws who are embedded in third-order consciousness.

But what about progress through Piaget's cognitive stages? Is it possible, for example, for a child to construct second-order consciousness on a purely intellectual basis, without such a moral conflict? Let us consider, once again, the glasses of water. To a first-order child, ultimate reality is what he sees. He sees that the narrow glass has more water and that is reality—at least as long as the water is in the narrow glass. When the water is poured back into the original glass, reality changes. The child has no problem with this because it happens all the time. Since there is no problem, no transcendental solution is necessary. Now, let us put the same child in a classroom with a progressive curriculum using measuring devices. The curriculum builds the child's confidence in a measuring device so that he considers it to be absolutely reliable. Now let him apply the measuring device to the problem of water in a narrow glass and invite him to compare the output of the measuring device with his observations, which he considers to be equally reliable. Uh oh! Conflict. Not quite a moral conflict, but a similar challenge to ultimate reality. Once again, conflict invites the child to come up with a transcendental solution: "Ultimate reality is not defined in terms of what I see: it is defined in terms of something else-conservation of physical properties."

On the whole, however, the concept of an intellectual bridge to transcendence is a bit of a stretch. It seems more likely that the child would have constructed second-order consciousness well before the time he reaches proficiency with measuring devices. And, although an intellectual bridge is conceivable, the immediacy of social interaction and the intensity of socio-moral dilemma almost guarantees that the first step to a new order of consciousness is a moral crisis. Subsequent intellectual problems, such as the conservation of physical properties, are probably more a question of applying an order of consciousness that is already present to a new situation. Still, we might

rephrase the motivating principle more broadly as an irrefutable challenge to ultimate reality. Stated as a hypothesis: challenge to ultimate reality is the engine that drives the transcendental evolution of consciousness. Without such a challenge—that is to say without the puddle drying up—there is no evolution. The principle has implications for education, psychotherapy, and religion which I will discuss briefly later.

COSMIC CONSCIOUSNESS

If metaphysics is the quest for ultimate reality, then by the time we reach fourth-order consciousness we are all expert metaphysicians. We have successively defined "ultimate" reality in terms of impulses, needs, relationships, and principles. And now—is it surprising?—even a reality based on principles shows signs of weakness. The fourth-order individual is on the verge of a new moral crisis: an irresolvable conflict of principles—a conflict equally devastating and painful as the conflict of expectations that led him to construct fourth-order consciousness to begin with. So what is the answer?

Fortunately, we are not the first to come up against this problem. A classic example of principles in conflict occurs in the Bhagavad Gita, in which Krishna initiates his student and friend Arjuna into the knowledge of dharma-the Hindu version of ultimate reality. As the story begins, Arjuna has a problem. He has hired Krishna as his charioteer for the war to end all wars. Banners are flying, conches are blowing, and swords are gleaming in the morning sun as the two great armies stand opposite each other preparing to fight. Arjuna asks Krishna to drive his chariot through the center of the plain so that he can survey the scene. He sees on his own side thousands upon thousands of elephants, chariots, and men, including his own son and his four brothers. He sees on the other side even more elephants and chariots, his revered teachers, and one hundred of his cousins. The cousins, led by their eldest brother and with the blessing of their blind father, had long ago defeated Aijuna's family in a crooked dice game, in which they publicly shamed his sister-in-law and subsequently banished Aijuna's entire family to the forest for twelve years (with one additional year to be spent incognito). After suffering this injustice and living up to every crooked letter of the conditions placed on them, Arjuna and his family have returned to claim the kingdom that was theirs. However, their cousins have refused to give even a postage stamp of land for them to live on. Negotiations have broken down and even a last-ditch diplomatic effort by Krishna himself has ended in failure. There is now nothing left but to fight it out.

You might expect Arjuna, a bom warrior and leader of his army, and possessing an unimpeachable cause, to be at the top of his form. But he is despondent. He tells Krishna, "I see among our opponents members of my family and my own dear teachers who are as Gods to me. It is better I should be killed than to harm a hair on their heads. But I see among our friends my brothers and my son who will surely be killed if I do not fight. What can I do?" And he slumps in his chariot.

Krishna, being divine, is amused, and he gently chides Arjuna for his weakness. He has an answer for Arjuna, but it is not the one you would expect. He does not order

him to fight. Krishna knows that Arjuna is no longer a man governed by law; he is a man governed by principles—in short, a fourth-order thinker. To issue a command—even as God—would be to ask him to return to third-order thinking, and Krishna, who is as concerned for Arjuna's spiritual growth as he is for the outcome of the war, will not do this. Nor does Krishna argue with Arjuna over principles: Arjuna is well aware of all the principles involved; that is his problem. No, the only way out for Arjuna is straight ahead, and in the rest of the *Gita* Krishna leads Arjuna into fifth-order consciousness, in which ultimate reality is realized not in terms of principles, but in terms of *dharma*. Having thus transcended his dilemma, Arjuna stands up, enters the battle unattached to its outcome, and wins the war with a clear conscience, although his son and most of his army, along with the entire opposing side, are indeed slaughtered.⁵

The *Bhagavad Gita* is a historical epic in which the characters and forces symbolize inner conflicts and choices that face us all. There is no way for Arjuna to *solve* his dilemma, he has to *transcend* it; and when he does, he discovers a new "ultimate reality" from which he is able to participate in the battle unaffected by the outcome. Once paralyzed, he is now free to act with a clear conscience. And, although it may appear to some that Arjuna has attained his freedom by abandoning his morality, let us remember the example of the first teenager to fall in love and the housewife who suddenly emancipated herself. Like Arjuna, these people have also attained a new freedom, which, to their peers, appears to have come at the expense of abandoning morality. But it is not morality which has been abandoned: it is a new reality which has been discovered. We will understand that reality when we discover it ourselves.

FIFTH-ORDER CONSCIOUSNESS: ENLIGHTENMENT IN SECULAR TERMS

To God all things are fair and good and right, but men hold some things wrong and some right. —Heraclitus

I doubt that Arjuna would have been immediately able to follow the arguments of constructive-developmental psychology, so we can excuse twentieth-century Western men and women if they do not follow the arguments of Hindu theology. But the point is that as a way of constructing reality, there is not much difference. Fifth-order consciousness *is* enlightenment in secular terms. I will argue later that there can still be enormous differences in integrity and sensitivity between fifth-order individuals, just as there can be differences between fourth-order individuals. But, in terms of their basic structures of consciousness, two fifth-order individuals are on the same plane, regardless of their religious or philosophical traditions.

How is this conclusion justified? Consider the subject-object balance of the fifth-order individual. Although he was previously embedded in principles and systems of knowledge, the fifth-order individual has stepped out of these principles and he has drawn a much larger circle encompassing all of them. This means that the pairs of opposites on which principles are based—wealth vs. poverty, freedom vs. bondage, life vs. death—are as one to him. Whereas fourth-order consciousness sees death from the perspective of life, fifth-order consciousness sees the *relationship* that creates life *and* death. "In other words," says the fifth-order individual, "it is not that

life is good for me and death is bad for me, and that I am either living or dead: I am both—and neither—at the same time. 1 am *the relationship that creates them*. Furthermore, there is no longer a distinction between *me* and *you*. My self is identified with neither—or both—simultaneously."⁶

In fifth-order consciousness we have stepped right off the map! Words and dualistic distinctions no longer serve to convey reality. That is why Lao-Tzu begins the *Tao Te Ching* with the lines, "The Tao that can be told is not the eternal Tao/The name that can be named is not the eternal name" (Mitchell, 1988, chap. 1). If reality is neither light nor dark, but the relationship that creates them, how do you describe it? The words of the mystics now begin to make more sense. If we do not yet construct reality from fifth-order consciousness ourselves, then at least we can see how it is possible. And if mysticism is not quite reason, at least it begins to look more reasonable.

Fifth-order consciousness answers our original question about mysticism and reason. Reason demands that mysticism explain itself in terms that reason can understand. Constructive-developmentalism explains why it cannot.⁷ Mysticism—now revealed as fifth-order consciousness—is not something you can *know*: it is an entirely different way of *knowing*. It is not a new idea; it is a new perspective; and, although an idea can be explained, a perspective cannot. It is a "you had to be there" kind of experience. A fourth-order thinker, who constructs a reality based on principles and pairs of opposites, is not able to conceive of a reality based on relationships which *create* opposites until he jumps out of his puddle. But then, when he suddenly sees reason as a limited system, reality changes forever.

The best confirmation that mysticism is a way of knowing and not something to be known comes from the mystical traditions themselves. Zen is particularly clear about this. In Zen the goal of the student's training is the experience of *satori*. *Satori* is not knowledge that can be transmitted by word or example: it is an understanding to be experienced. D.T. Suzuki (1934) defines *satori* this way:

The acquiring of a new viewpoint in Zen is called *satori*. ... Without it there is no Zen, for the life of Zen begins with the "opening of *satori*." *Satori* may be defined as intuitive looking-into, in contradistinction to intellectual and logical understanding. Whatever the definition, *satori* means the unfolding of a new world hitherto unperceived in the confusion of a dualistic mind (p. 88).

If *satori* is amenable to analysis in the sense that by doing so it becomes perfectly clear to another who has never had it, that *satori* will be no *satori*. For a *satori* turned into a concept ceases to be itself, and there will no more be a Zen experience. Therefore, all that we can do in Zen in the way of instruction is to indicate, or to suggest, or to show the way so that one's attention may be directed towards the goal. As to attaining the goal and taking hold of the thing itself, this must be done by one's own hands, for nobody else can do it for one (p. 92).

What Suzuki is saying is that it is impossible to grasp Zen with dualistic reason. Indeed, all of the paradoxical puzzles or *koans* that are given to students of Zen (e.g., "What is the sound of one hand clapping?") are intended to show the student the *limitations* of dualistic reason and to create a state of extreme inner conflict in which the student becomes *stuck*. The student is not expected to go to his laboratory and with sensitive equipment record the actual sound of a single hand clapping (indeed, such

an achievement, however worthy in the world of science, would be greeted with outright ridicule in the world of Zen), but rather to transcend the question, and his stuckness, by entering into a new way of knowing.

The Zen student's stuckness, which constructive-developmentalism would interpret as a moral conflict or challenge to ultimate reality, is regarded by Zen masters as an essential part of the training. Seen in this light, Zen is revealed to be a straightforward technique for advancing students to fifth-order consciousness. It will be important to verify, using Kegan's subject-object interview techniques (Lahey et al.), whether fifth-order consciousness does indeed correspond to satori and other forms of religious enlightenment. A positive result would open up new avenues for crossfertilization between monastic disciplines, psychology, psychotherapy, and education. In psychotherapy, for example, Kegan (1982; 1994) provides ample evidence to suggest that a frequent reason for seeking therapy is the same kind of stuckness that the Zen monk is driven toward by his master. Such stuckness can (and must) occur not just between fourth-order and fifth-order consciousness, but between every order of consciousness. And, not only in therapy but also in education, helping students to transcend their current order of consciousness is simultaneously a cherished goal and an urgent, but poorly understood problem, especially in the area of adult learning. The limitations of a student's order of consciousness represent a genuine barrier to further learning and frequently create a mismatch between what is being learned and what is being taught (Kegan, 1994).

FIFTH-ORDER MORALITY

We said earlier that an individual's system of morality is determined by the subjectobject balance of her order of consciousness. With the exception of a morality based
on impulses, all of the other moralities—fairness, empathy, and principles—are good
and defensible standards. What about a fifth-order morality? What would it be based
on? Unfortunately, the English language does not have a word for it, but Eastern
languages offer two: the Sanskrit word *dharma*, and the Chinese word *tao. Dharma* is
roughly translated as "sacred duty" (Miller, 1986), but, like all fifth-order concepts,
translations do not do it justice. *Tao* is often translated as "the Way." But what is "the
Way," and what is one's "sacred duty"? This is the trick. Being fifth-order concepts
themselves, *dharma* and *tao* defy definition: define them and you've lost them. But
perhaps the least inadequate way of defining them is to say that, when all principles
have been tried and exhausted and when the individual is possessed of a clear and
open "beginner's mind," what *dharma* and *tao* come down to is *intuition*,8

One can immediately see why we do not have any Taoist judges. The Tao is not the kind of thing you can defend with words, and a real Taoist would not try. When you get right down to it, though, even fourth-order principles are fairly tricky to defend, and this might be why thoughtful judges try to stick to third-order laws, however badly they may be written.

Assuming she is not a sitting judge, however, what is there to keep a fifth-order individual—once she has discovered it—from calling the Tao anything she pleases? The key qualification is "once she has discovered it." An individual who has

constructed fifth-order consciousness is *already* a highly-principled individual. In the course of her life she has confronted four deep moral crises, and she has agonized over them long enough and hard enough to arrive at the inconceivable solution of a new order of consciousness. Most people never get this far (Kegan, 1994). But, in a sense, this is dodging the question. The real question is, is it not possible for a fifth-order individual to be mistaken about the Tao, or even to mislead herself? And is there not a range of integrity and sensitivity among fifth-order individuals?

The answer to both questions is a qualified yes. Just as fourth-order and third-order individuals can mislead themselves, so can fifth-order individuals. There is nothing inherent in an order of consciousness that prevents a person from acting foolishly or selfishly. What prevented Jesus from robbing grocery stores? Nothing—nothing, that is, except his own sensitivity and integrity. This is because morality is no easier at the fifth order than it was at the fourth. In fact, it is even harder. There is a progression of difficulty through all three of the adult balances. The third-order individual bases her morality on commitments, but her task is made easier by the fact that these are frequently codified as laws, contracts, and social obligations. The fourth order individual, in recognizing that laws are fallible, bases her morality on principles—but it then becomes *her* responsibility to reveal the principle. As if this wasn't hard enough, the fifth-order individual, in recognizing that even principles are not absolute, bases her morality on the Tao, and what is *that*? Fifth-order consciousness is not an escape from responsibility; it is a challenge to a *higher level* of responsibility.

PEARLS OF WISDOM

We fail to get our way with God because we lack two things: profound humility and an effective will. Upon my life I swear that God in his divinity is capable of all things, but this he cannot do – when the soul has these two things, he cannot leave her unsatisfied.

- Meister Eckhart9

At this point, psychology should give religion its due. ¹⁰ The orders of consciousness which psychologists have just begun to accept and explore were already familiar to religion thousands of years ago. However, to be fair, much of religion is a murky, muddy quagmire full of resplendent vanity and enshrined misconceptions, and scientists may be excused if they find empiricism, in spite of its acknowledged shortcomings, to be a more reliable road to the truth. In fact, as Fowler (1981; 1991) has pointed out, there may well be a point in an individual's spiritual development where empiricism is exactly what is required. But there are pearls buried in the mud, and if religious mystics discovered fifth-order consciousness, then they probably know something useful about it.

Two useful things that we might hope to learn from the religious mystics are a discipline for attaining fifth-order consciousness (or discovering the Tao) and hints for following the Tao once we have discovered it. If we comb the teachings of the world's major religions with this in mind, we find three ideas repeated over and over again. These are (1) moral integrity, (2) what I will call "transparency," and (3) love. Traditionally—especially in the West, but also in the East—these ideas are cast as *commandments*: "Thou shalt have integrity"; "Thou shalt not display thine ego"; and

"Thou shalt love thy neighbor." Following in the footsteps of tradition, the faithful take these commandments as their cue to go out and spy on each other to see who is disobeying the rules: "Did you hear about so-and-so? *Such* a display of ego! Why, I never display *my* ego ...and so on.

This, of course, is just the kind of ignorant hypocrisy that drives young people out of the church in droves. But if we can hold our noses long enough, we might be able to snatch some unseen pearls and run off to a quiet place where we can examine them. The first pearl is *moral integrity*, or what Eckhart calls "an effective will." Obviously, integrity is a good thing. But why? To keep other people from gossiping about us? *No, they'll do it anyway*. Because it makes us feel good? *Well, sort of.* Because it's good for our spiritual growth? *Yes.* Among the many things spiritual growth is associated with is the development of the next order of consciousness which, as we have already seen, is dependent on moral conflict. But one cannot experience moral conflict if one has no genuine loyalty to one's own morality to begin with. Integrity must come first. Directly stated: the absolute fastest way to come to a moral dilemma is to put your own morality into full and consistent practice. "Thou shalt not put thy God to the test," but "thou *shalt* put thy morality to the test."

The second pearl is transparency. This is an unusual name for a pearl, and its meaning might be clarified if I list some of the names other people have given it. For example, Eckhart's "profound humility" comes close to what I mean by transparency. An act done with profound humility is done with forgetfulness of ego. Thich Nhat Hahn (1976) uses the term "awareness" in a related sense. Nhat Hahn's awareness is a nonjudgmental state in which an individual is fully engaged in her experience in the present moment. If one is eating an orange, one is fully engaged in the orange: its smell, taste, feel, moisture, etc. And if one is experiencing an unpleasant emotion, one experiences it like one experiences the orange-noticing its feeling, direction, intensity, and cause - this way one can master it. Meditation is another word that describes what I mean. In Buddhism, meditation is a state in which awareness is heightened, and the Buddhist monk is encouraged to meditate on every pleasant and unpleasant aspect of the human body and human life until she reaches a state of equanimity (Nhat Hahn, 1976; Walsh, 1993)." Finally, Jesus (Matthew 18:3-4) said that if one does not come to the kingdom of heaven as a little child, one will not enter. Jesus was also talking about transparency. A transparent person is without ego and self-consciousness, as children can be when they are at their best. What transparency is, then, is a state of unselfconscious equanimity, in which things are seen for what they are and not colored by fears or expectations. Only in transparency can an individual experience stuckness, and only in transparency will she accept the transcendent solution.

The third pearl is *love*. Scott Peck's (1978) definition in *The Road Less Traveled* comes close to the religious-mystical meaning of love. Peck defines love as a volitional act of self-extension: it is the will to extend oneself for the growth of another person.¹² But, while mystics would probably agree with the idea that love is an extension of self, they would probably *not* agree that love is volitional (something you can *will* or *not will*). Love, to the mystics, is more like a *force* that you can either block or allow to pass. A perfectly transparent person is perfectly transparent to love: it flows right through her. An "opaque" person, someone who is full of ego, is opaque to love. Try as she might, she cannot get it to flow because, to tum on love, she has to

turn off herself. One who sees this clearly will recognize that all she can really do is stand back and allow love to pass through her.¹³ The trick, of course, is in recognizing when one is truly standing back. More often than not, what one imagines to be love is really ego, and this is very likely the origin of Jesus' warning about false prophets: "By their fruits, you shall know them"—a very practical criterion equally applicable to self as it is to others.¹⁴ Love, then, is not something that can be cultivated like integrity or transparency: it is what integrity and transparency are cultivated *for*. If moral conflict is the engine of transcendence, love is the fuel that makes it run.

The interesting thing about these three pearls is that they apply equally well in every order of consciousness. It is not that one needs integrity and transparency to go from fourth-order consciousness to fifth and not from third to fourth. It is not even that one can discard her pearls once she has reached a new order of consciousness, although people do. But the people who discard their pearls are missing something, because integrity, transparency, and love work their magic within each order of consciousness to produce an even bigger pearl, which I call Peace. Peace is the feeling that you get when you are doing with your hands, what you feel in your heart, and what you know in your mind is good. This pearl is a triple unity of body, mind, and spirit—and it is just this Pearl, I believe, that the man in the parable sold everything he owned to purchase.¹⁵

FAITH AND THE HERO'S JOURNEY

The happy ending of the fairy tale, the myth, and the divine comedy of the soul, is to be read, not as a contradiction, but as a transcendence of the universal tragedy of man. The objective world remains what it was, but, because of a shift of emphasis within the subject, [it] is beheld as though transformed. Where formerly life and death contended, now enduring being is made manifest—as indifferent to the accidents of time as water boiling in a pot is to the destiny of a bubble, or as the cosmos to the appearance and disappearance of a galaxy of stars. —Joseph Campbell¹⁶

Faith and myth are two more pearls which neither empiricism nor rationalism have, as yet, been able to invent or supply. This is not to say that there is always a felt need for them. In fact, in the transition from third- to fourth-order consciousness, conventional religious faith is a good candidate for rejection (Fowler, 1991). But in a broad sense, faith and myth are essential elements. It is no child's journey to leave one's morality behind and step out into the unknown, for the bridge (to the next order of consciousness) on which one must walk is perilous. He who would cross must be absolutely sure of his footing before he steps onto it. Behind lies his morality, which, with the first step, will be decisively rejected; below lies the threat of insanity—a lost grip on ultimate reality—and ahead lies what? It is really faith that keeps one moving—faith that there will indeed be a new rock on which to anchor one's morality. To the extent that an individual's personal religion is able to support that faith, it is a good and helpful thing.

Another good and helpful thing is a pattern to follow—a myth or a story—which doesn't necessarily tell one where to go or what to do, but which serves to assure that the journey is possible. Every major religion has one or more such stories. Hinduism has the stories of Aijuna and Rama; Buddhism has the story of the enlightenment of

Gautama Buddha; Islam has the story of Mohammed; the Old Testament has the story of Moses; and the New Testament has the story of Jesus. A common element in these stories is a period of uncertainty, emptiness, or searching that corresponds to the point where the old morality has been abandoned but the new morality has not yet been found. This is followed by a battle or divine revelation, and then return and renewal. Joseph Campbell (1968) shows how all of these stories are really one story—one myth—the myth of the hero, who first renews himself and then brings renewal to the world:

Whether the hero be ridiculous or sublime, Greek or barbarian, gentile or Jew, his journey varies little in essential plan. Popular tales represent the heroic action as physical; the higher religions show the deed to be moral; nevertheless, there will be found astonishingly little variation in the morphology of the adventure, the character roles involved, the victories gained (p. 38).

A hero ventures forth from the world of common day into a region of supernatural wonder: fabulous forces are there encountered and a decisive victory is won: the hero comes back from this mysterious adventure with the power to bestow boons on his fellowman (p. 30).

The hero's tale—to stretch a metaphor—is the tale of the frog who becomes a prince. Leaving the known world behind, he seeks out and confronts unimaginable powers and—with the aid, perhaps, of a beautiful woman—he somehow exceeds himself. Of course! He was a prince all along! It is the archetypal transcendent experience, an experience which takes us not farther from ourselves, but closer:

Furthermore, we have not even to risk the adventure alone; for the heroes of all time have gone before us; the labyrinth is thoroughly known; we have only to follow the thread of the hero-path. And where we had thought to find an abomination, we shall find a god. And where we had thought to slay another, we shall slay ourselves; where we had thought to travel outward, we shall come to the center of our own existence; where we had thought to be alone, we shall be with the whole world (p. 25).

In the transition to a new order of consciousness, we have located the very *source* of the hero myth. The hero myth is the same myth that we live out over and over again as we struggle from one order of consciousness to the next: quest, emptiness, miraculous revelation, and return. Each of us is the hero three, four, perhaps five times over. Would that we only knew it and that our culture only recognized it. "Where are the heroes?" we cry, when they are all over the place! But our culture does not recognize this kind of heroism, and it becomes the role of myth, preserved in stories such as the *Bhagavad Gita*, the *Iliad* and the *Odyssey*, and reborn in popular films such as *Star Wars* and *The Lion King*, to remind us that the hero is our own self.

THE RELIGIOUS-MYSTICAL IDEAL

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Not "Revelation" — 'tis, that waits,
But our unfurnished eyes —
—Emily Dickinson<sup>19</sup>
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In the world of spiritual seeking, it is easy to jump to the conclusion that, once one is enlightened, she is instantly a perfect being—radiating vibrations of pure love for all

of humanity and bestowing her blessings on all of nature. I have taken great pains here, after once having fallen for a similar fantasy myself, to point out that an order of consciousness tells us nothing about an individual's integrity or her transparency, aside from the fact that she had enough to get there. We still attain our sainthood the old-fashioned way, and there is nothing inherent in fifth-order consciousness that entitles the possessor to sainthood over, for example, a third- or fourth-order missionary who goes to help lepers in a slum in Calcutta.²⁰

Still, many of us maintain the vision of the fully enlightened man or woman who possesses an otherworldly presence and an unlimited capacity for love as an ideal that we might one day attain. This is a good thing because it gives us a goal to aim for, and there is, in fact, something about each successive order of consciousness that brings us a step closer to that ideal. In third-order consciousness the individual is for the first time able to experience empathy in a relationship. In fourth-order consciousness, she is able to sufficiently distance herself from the relationship so as to serve the interest of the other person without being blinded by her own interest in the relationship. And in fifth-order consciousness there is another step, which is made clear by the following Zen parable:

After Bankei had passed away, a blind man who lived near the master's temple told a friend: 'Since I am blind. I cannot watch a person's face, so I must judge his character by the sound of his voice. Ordinarily, when I hear someone congratulate another upon his happiness or success, I also hear a secret tone of envy. When condolence is expressed for the misfortune of another, I hear pleasure and satisfaction, as if the one condoling was really glad there was something left to gain in his own world. In all my experience, however, Bankei's voice was always sincere. Whenever he expressed happiness, I heard nothing but happiness, and whenever he expressed sorrow, sorrow was all I heard' (Reps, p. 30).

No one can fail to identify with this story. How distasteful it is to inwardly wish harm on a person we are outwardly congratulating or consoling. Until we reach fifth-order consciousness, there isn't much we can do about it, aside from swallowing our jealousy and remaining true to our principles. "I am I and you are you, and what you get I may never get, but at least I can be nice to you." Having lived so long, however, the fifth-order individual has just about had it with such recalcitrant jealousy. She may feel that she would sooner die than ever experience it again. And this is the turning point, because fifth-order consciousness invites her to die in just this sense. There is no other; therefore there is no self. No self means no selfishness; no fear (even of death); no desire for self-aggrandizement, wealth, power, or anything that would bring harm to another person. This death is the birth of the mystic's life, and it is the source of her potential for love without fear, jealousy, or desire.

SUMMARY

A human being is part of the whole that we call the universe, a part limited in time and space. He experiences himself his thoughts and feelings, as something separated from the rest—a kind of optical illusion of his consciousness. This illusion is a prison for us, restricting us to our personal desires and to affection for only the few people nearest us. Our task must he to free ourselves from this prison by widening our circle of compassion to embrace all living beings and all of nature. —Albert Einstein²³

It is not usual to think of Einstein as a mystic, but these words reveal him to have been one. His example, if anyone's, demonstrates that reason and mysticism are not incompatible modes of thought, and his contributions, both as a physicist and as a peace activist, are sterling examples of the fruits of both ways of knowing.

What I have attempted to do is to build a bridge between mysticism and reason using the constructive-developmental psychology of Robert Kegan. In Kegan's scheme, an individual's consciousness may evolve through five increasingly complex orders, each of which represents a qualitatively distinct subject-object balance. The individual constructs his own system of morality according to the "ultimate reality" of his current subject-object balance. I have suggested that Kegan's fifth-order of consciousness represents the structural foundation of mysticism and that the engine that drives the evolution of consciousness is moral conflict or, more generally, an irresolvable challenge to the current order's ultimate reality. I have also argued that transcendence, a term frequently applied to the transition to mysticism, applies equally well to the transition between any two orders of consciousness because the moral conflict that leads to the construction of a new order of consciousness is not resolved-it is transcended. In order to experience moral conflict, and thereby advance, an individual requires moral integrity and transparency, two universally normative principles which may be found in the major religions. Two other elements of religion, faith and myth, are also essential, although the individual may not be consciously aware of them, and constructivedevelopmentalism reveals the root of the hero myth to be the repeated pattern of evolution of new orders of consciousness.

What I have *not* attempted to do is propose a comprehensive psychology of religion. Mystical knowing is only one aspect of religion. For some religions, such as Zen, it is the central aspect. But for others, such as Christianity, the popular emphasis seems to be on the relationship between human beings and God. Constructive-developmental psychology has nothing to say about God in this sense and, therefore, nothing to say about that relationship. Nor have I attempted to diminish the value of religion to individuals at all orders of consciousness, nor the ultimate value of any order of consciousness. Quite the contrary. The transition to fifth-order consciousness is no more courageous than the transition to second or third order. Thus, we may now appreciate the child, who struggles to master his impulses, in the same sense that we appreciate the adult devotee as he struggles with his relationship to God. Each transition involves an expansion of self and is, therefore, equally *holy*.

Another potential misunderstanding that I want to avoid is the idea that mysticism represents a "New Morality" for mankind, which we are now all supposed to embrace and live up to. To suggest this is to misunderstand constructive-developmentalism. Constructive-developmentalism says that morality is *constructed by the individual* according to his subject-object balance. This means that a system of morality based on a single order of consciousness cannot be socially imposed, because, to any individual not at that order, the system will be meaningless: either over his head or beneath him. Furthermore, the fact that a higher-order morality exists as a potential does not invalidate a lower-order morality. Thus, the potential for a morality based on the Tao does not invalidate a morality based on principles. The only person for whom

a principled morality is no longer valid is the person for whom a morality based on the Tao exists as a *reality* – and that is *his* problem; not ours.

As an interpretation of mystical knowing, a constructive-developmental model succeeds where an altered-state-of-consciousness model fails. An interpretation of mysticism based on meditative states and peak experiences fails to account for sacrifice and suffering in the transition to mysticism. It also has difficulty accounting for the "high plateau" of mystical knowing. Constructive-developmentalism interprets transitional suffering as the unavoidable outcome of a severe emotional challenge: that of leaving an old morality behind for a new one yet unknown and of surrendering one's old self for a larger and more incorporative one. The "high plateau" in constructive-developmentalism is fifth-order consciousness: a permanent and qualitatively distinct way of knowing based on non-duality. Although it does not deny the utility of meditative states in the transition between orders of consciousness, constructive-developmentalism insists - in agreement with Zen-that the "proof of the pudding" is a change in the individual's ordinary waking state, not just an insight gained from a transitory meditative state. As a bonus, constructive-developmentalism reveals how spiritual progress is tied to the perennial religious values of transparency and moral integrity. More than just "good-ideas," these qualities are shown to be absolute prerequisites for the evolution of consciousness-an encouraging message our world could stand to hear.

As a developmental model of basic structures of consciousness, constructivedevelopmentalism represents a departure from models based on metaphors of "activation" or "unfolding." The perennial philosophy-expressed as yoga chakras, for example—has been interpreted to mean that pre-existing or latent orders of consciousness are sequentially "awakened" by spiritual practice. Constructive-developmentalism, however, says that such consciousness structures do not exist until they are constructed by the individual. The appropriate metaphor for the development of consciousness, then, is not awakening, but evolution. Just as Darwin would say that there is no "latent zebra" hidden in the deep structures of the Earth, constructivedevelopmentalism says that there is no "latent fifth-order of consciousness" hidden in the deep structures of the individual. Zebras evolved in a specific ecosystem as a response to a specific set of environmental challenges. Likewise, an order of consciousness evolves in a specific individual as a response to a specific set of ontological challenges. Although a theory of the evolution of consciousness could prove as hard for theology to swallow as a theory of the evolution of life, I think there is much more agreement than disagreement between constructive-developmentalism and religion, and I believe that a theory of the evolution of consciousness can be viewed as a vindication of the perennial philosophy rather than as a challenge.

Speaking of the problems of faith and reason in a modem age, Kegan (1976, p. 25) observed, "A modem dilemma seems to be that we desperately need, on the one hand, to be reunited with the sacred (to have faith in faith), while on the other hand, we need to have our faith in reason go unmolested." I cannot think of a better way to sum up the value of the ideas I have presented in this essay. Mysticism, interpreted as fifth-order consciousness, is substantially "demystified." It is not *anti*-reason; it is a perspective *on* reason. And even if one does not immediately see the world from a

mystical perspective, one sees how it can be achieved. Moreover, the experience of mystical knowing is left open to anyone—not just "great souls" who are somehow bom that way. Fifth-order consciousness does not, however, hold out the promise of an irreversible promotion to sainthood. There is nothing inherent in an order of consciousness that guarantees integrity or transparency. However, each successive order of consciousness is a step closer to the ideal of true selflessness, and in fifth-order consciousness it becomes available. Its realization depends on the individual.

NOTES

- ¹Quoted in Mitchell (1989), p. 4.
- ² Eckhart (1993), p. 131.
- ³ Quoted in Mitchell (1991), p. 76.
- ⁴ Mitchell (1988), chapter 67.
- ⁵Arjuna's dialogue with Krishna is the text of the *Bhagavad Gita*. The *Bhagavad Gita* itself is a chapter in the great Indian epic, *The Mahabharata* (see Krishnamacharya, 1983).
- ⁶ It is amusing to consider that subject-object psychology meets its Waterloo in the fifth order of consciousness the fifth order recognizes no distinction between subject and object.
- ⁷ Some may object to my use of the term *constructive-developmentalism* in place of *constructive-developmental psychology* because it raises the question of making psychology, which is (more or less) a science, sound like philosophy, which is not a science (others may simply lament its passing into the realm of "isms"). When 1 first caught myself doing this. I thought it was simply because "constructive-developmentalism" is stylistically more compact, like "Freudianism," behaviorism," and "humanism." But now 1 realize that there is a deeper reason. The conclusions of constructive-developmental psychology are so far reaching—encompassing development, morality, and even parts of a religion—that it hits me more like a philosophy than a psychology.
- ⁸I use the word *tao* in the rest of this essay, although I might as easily have used *dharma*. Another word that fits is Robert Pirsig's *Quality*, from *Zen and the Art of Motorcycle Maintenance*. Pirsig shows how *Quality* is impossible to define, and he equates it with the *tao*, *dharma*, and the Greek concept *arete*.
- 9 Eckhart (1993), p. 134.
- ¹⁰ And to its enduring credit, transpersonal psychology has already done this.
- 11 Patanjali's yoga meditation is different: awareness is decreased rather than heightened. See Walsh (1993) for a discussion.
- ¹² Lovc has also been popularly defined as the set of physical symptoms one experiences in the presence of an object of affection, thus creating a lot of confusion about love. Sanskrit and Hindi solve this problem by having two words for love: *pyara* and *prema*. *Pyara* is romantic love: the "1 love you, you love me, let's go under the coconut tree" kind of love. *Prema* is selfless, divine love: more along the lines of Peck's definition. The fact that popular English has only one word for love is not just an indication of a weakness in our language; it is an indication of a weakness in our culture. We might infer that Indians—like the Eskimos, who have more than a dozen words for snow—have more than one word for love because they have looked into it more deeply.
- ¹³ Although it is not what he was referring to, this is one sense in which Freud was *right* when he said, "The ego is like a clown in a circus, always trying to stick in its oar to make it look like it has something to do with what is going on" (Freud & Jung, 1974, p. 404),
- ¹⁴I cannot resist, here, inserting a bit of metaphysics. Many spiritual thinkers have come to the conclusion that life is a learning experience that is part of a larger game. One is led to (or tricked into) this conclusion by the very observation that Jesus made about the false prophet: the only way we can tell how we are doing

is by observing the physical consequences of our actions (or "non-actions" as the Buddhists would put it). This is perhaps the only justification for having a physical world in which people suffer. From this perspective, then, the "meaning of life" is revealed as akin to the meaning of a school in which individuals learn to be transparent to love. Although this is an attractive answer, it doesn't really solve the problem—it just pushes it up to a higher level—and one is forced to conclude that the meaning of life cannot be found this way. This is just the sort of metaphysical problem that can drive one to non-dualistic thinking—or drive one to drink.

- ¹⁵ Matthew, 13:45-46.
- 16 Campbell (1968), p. 28.
- ¹⁷ And if we are expecting such pearls from empiricism or rationalism, we probably do not understand them very well. See Wilber (1990) for a discussion of the limitations of empiricism, rationalism, and mysticism.
- ¹⁸ Culture can help the individual through his uncertainty by formally recognizing it as a stage of development. Robert Bly (1990, pp. 79-80) cites a fascinating example of an ancient Norwegian culture that recognized an "ashes" period in adolescence. In those days, people lived in long communal houses, similar to North American longhouses, with beds on either side and a fire in the middle. Youths (who were almost certainly experiencing the uncertainty of the transition from second-order consciousness to third-order consciousness) were permitted to spend two to three years in relative inactivity, lying in the ashes near the fire, after which they took up their adult responsibilities. (Bly doesn't tell us if young women were allowed similar consideration. Presumably not.)
- 19 Quoted in Mitchell (1989).
- ²⁰ See *The City of Joy*, by Dominique Lapierre (1985) for an example of what a saint is.
- 21 To a developing fifth-order morality, what the rest of the world sees as "normal jealousy" is shockingly revealed as *self-hatred*. The emotion of this realization drives the individual on to the next step.
- 22 Words trap me here. Of course there is a *self* but not the individual self of the fourth-order: it is a universal self (which does not experience unity as a "rush," but knows it in its bones).
- ²³ Quoted in Mitchell (1991), p. 191.

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TRANSPERSONAL PSYCHOLOGY RESEARCH REVIEW: RESEARCHING RELIGIOUS AND SPIRITUAL PROBLEMS ON THE INTERNET

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BACKGROUND

One of the objectives of this Research Review series is to foster the development of a network of transpersonal psychology researchers. Previous reviews have discussed methodological issues and presented abstracts of both quantitative and qualitative, traditional and innovative studies of specific topics central to our field. Beginning with mystical experiences (Lukoff & Lu, 1988), the reviews have covered psychoactive substances and transpersonal states (Lukoff, Zanger & Lu, 1990), psychoreligious (Lukoff, Turner & Lu, 1992) and psychospiritual (Lukoff, Turner & Lu,

1993) dimensions of healing. Our original plan was to focus this Research Review article on anomalous experiences and healing. But the explosion of resources available on the Internet as well as interest in the Internet among researchers led us to switch topics. One previous Research Review also covered databases and archives in transpersonal psychology (Lukoff & Lu, 1989), but at that time, just six years ago, none of them were online.

The previous five Research Review articles did make use of one set of databases which have been accessible on the Internet for almost twenty years and have been widely utilized by researchers, namely the reference databases such as PsycINFO, Medline, and Religion Index. This article describes procedures for conducting

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searches for materials relevant to religious and spiritual problems on other parts of the Internet, including World Wide Web sites, newsgroups, online university catalogs, and other resources.

The Internet is itself a metaphor for human transformation, a topic that transpersonal psychologists study and transpersonal clinicians try to facilitate with their clients. Consider that some twenty-five years ago, the U.S. Defense Department conceptualized and then funded the creation of a decentralized information network that would be immune to being disabled by a nuclear attack. Defense money supported the development of the Internet as a worldwide network of thousands of smaller computer networks which in turn connect to millions of educational, governmental, commercial and personal computers. No one organization owns or operates the Internet, but to function efficiently, many agreements have been reached about protocols for language and communication.

From these martial beginnings, many believe "the Internet, with its boxes, cables, wires, and satellites, is a materialization of the spiritual connection that we already share with our fellow humans but have been given little cultural permission to notice and celebrate" (Hawes, 1995, p. 35). The popular media often focuses on the commercial side of the Internet: visions of the globe circled by satellite broadcasts of television reruns and credit card transactions criss-crossing continents. However, Jean Houston claims that "What's happening here is an electronic neurosphere that is going to change philosophy, theology, the way we think about ourselves—I mean literally a global mind field that is spawning a new culture" (Hawes, 1995, p. 35).

And such enthusiasm is particularly rife among educators who predict it will dramatically alter how teachers and students interact and the range of resources that they have available. Michael Rabin (1996), the T.J. Watson Professor of Computer Science at Harvard University, argues that,

Information technology will affect the very way we leam and teach and retrieve knowledge. With electronically published articles we can incorporate features that go beyond enabling the reader to read an article. The reader will be able to navigate from the given article to articles and books referenced in the paper, as well as to subsequent articles referring to the article in question.... The acquisition of information will be provided by the digitized library, electronically published books, encyclopedias, scholarly articles, and image databases. It is often said that a major benefit derived from learning any subject is the knowledge of what it encompasses and the ability to find required information. The emerging World Wide Web style for organizing information and navigating through it throws a new light on scholarly pursuit. Our common access to an increasingly sophisticated world of knowledge and information opens up innumerable possibilities (p. 15).

It is a special pedagogical boon for at-a-distance programs, which many of the major transpersonal graduate schools have (e.g., CIIS, ITP, and Saybrook Institute). Research methodology, in particular, is one topic which can now be taught experientially, as students embark on studies together, collaborating and transmitting quantitative and qualitative data back and forth.

While many expect the impact of this technology will be comparable to inventions such as the Gutenberg press and television, the amazing growth of the Internet far

exceeds the introduction of any other electronic medium. The size of the Internet has more than tripled in just the past two years (Boumellis, 1995). Best estimates are that about sixty million persons worldwide are using the Internet as of the end of 1995 with North America housing the largest number and West Europe next (Boumellis, 1995). Until recently, the major non-Defense Department users were people in academia who employed the Internet to hold discussions, collaborate on research and writing projects, and disseminate intellectual resources such as bibliographies and manuscripts; the ready availability of these archived resources makes the Internet particularly valuable for researchers.

The fastest growing area and the one that is making the Internet user-friendly for the first time is the World Wide Web (Web or WWW). It is a vast number of documents, graphic images, and now audio and video clips connected together by hypertext links that allow one to move between resources and sites on remote continents merely by clicks of the mouse. A visitor to a site can pick and choose where to go, in what order, and the amount of detail he/she would like. Further advances in multimedia applications are visibly on the horizon, such as real time conferencing, and for the most part these resources can be easily downloaded for no cost to one's personal computer.

WWW sites are stored in computers adapted to function as servers, and one computer server may hold many Web sites. In 1993, there were only 130 WWW servers. An estimated 40,000 Web servers are online as of the end of 1995. From November 1994 to April 1995 the number of WWW sites went up three hundred percent (from 10,000 to 40,000) and up another almost two hundred percent to October 1995 (110,000 sites—according to Yahoo's WWW on-line guide). Some individual sites report as many as one million "hits" (visits) a day, such as the recent "24 hours in Cyberspace" site.

Transpersonal topics also figure prominently on the Internet, as our searches revealed, and also seem to be popular with "Netsurfers." When Spectrum Virtual University offered on its Web page a four-lesson course on dreams in the summer of 1995, free of charge, it got 5,000 registrants! Many spiritual groups are proliferating in cyberspace, with some dating their origins back to 1980 (Hawes, 1995).

RESEARCHING RELIGIOUS AND SPIRITUAL PROBLEMS

Religious or Spiritual Problem (V62.61) has been included in the *Diagnostic and Statistical Manual, Fourth Edition (DSM-IV)* (American Psychiatric Association, 1994) for the first time, as a condition (not a mental disorder) that can be the focus of clinical attention. This Research Review series has played an important role in the evolution of this category. The proposal (Lukoff, Lu & Turner, 1992) and subsequent supporting documents to the Task Force on *DSM-IV* for this new diagnostic category were made by the first three authors partially based on these articles. The work on the proposal in turn led to other Research Reviews of the literature on psychospiritual (Lukoff et al., 1993) and psychoreligious (Lukoff et al., 1992) dimensions of healing. These reviews presented abstracts of studies and investigated the frequency with which religious and spiritual problems are brought into treatment, their presentation and phenomenology, and the most appropriate treatment approaches.

Previous articles on religious and spiritual problems published by the authors were based primarily on searches of the reference databases (Lukoff et al., 1992; Lukoff, Lu & Turner, 1995; Turner, Lukoff, Barnhouse & Lu, 1985). (The search process for reference databases .is described below.) But we wanted to see what additional materials and references might be available on the rest of the Internet. Fortunately, a number of search engines have been developed that allow a researcher to systematically hunt for resources on the Internet. We will illustrate search techniques by taking one specific type of religious/spiritual problem and showing how we tracked down pertinent resources on the Internet.

Previous articles (Lukoff et al., 1992; Lukoff et al., 1995; Turner et al., 1985) have described a number of specific religious and spiritual problems including: loss or questioning of faith; change in denominational membership; conversion to a new religion; intensification of adherence to the beliefs and practices of one's own faith; joining, participating in or leaving a new religious movement or cult; medical/ terminal illness; and problems related to an intense mystical, near death, spiritual emergence/emergency, or meditation experience. Joining, participating in or leaving a new religious movement or cult was selected for this search because there is much literature on this topic in both transpersonal and mainstream psychology and psychiatry. Transpersonal psychologists are particularly well-suited for working with persons who are considering joining, are having difficulties related to their participation in, or who have left a religious/spiritual group. Several transpersonal psychologists have already made significant contributions to this area (Anthony, Ecker & Wilber, 1987; Bogart, 1992; Vaughan, 1987). This topic has also been pursued by historians, sociologists, religionists and other scholars whose work is relevant to the assessment and treatment of religious and spiritual problems.

Definitional issues abound in this area: One person's "cult" may be another person's chosen spiritual path. Both psychology and psychiatry have been generally hostile toward new religious groups (Kilbourne & Richardson, 1984; Post, 1993). The term "cult," as we shall see below when the search results are presented, has a clearly negative connotation. Transpersonal psychologists generally use the terms "spiritual groups" or "new religious movements" to distinguish these groups from clearly destructive cults, but many authors lump them together. We will discuss definitional issues further as we present results from the searches.

SEARCHING THE WORLD WIDE WEB (WWW)

The WWW is the cutting edge of the Internet because of its extreme ease of use. There are a number of search engines that systematically hunt through the estimated 100,000 plus WWW sites and other parts of the Internet as well. They are accessible directly from the homepage of Netscape, currently the most popular Web browser used by an estimated seventy-three percent of Web users (Hawes, 1995); the major online services such as America Online and CompuServe also provide access to them. At least a dozen major search engines are available. Some search procedures are hierarchical and allow for linear pursuit of resources (e.g., the Yahoo search engine). Others, such as Lycos and Infoseek, generate comprehensive lists of related resources. Most searches produce lists of hypertext links which allow one to simply

click on their name to access them. Because of the nature of the Web, the choice of search engine may not be so critical because once one finds even a single information-rich Web page, it can lead one to other Web pages and resources, such as special collections and bibliographies at university libraries and centers, organizations, publications, and discussion groups (newsgroups, bulletin boards etc.) all over the globe—but just a click away. Following the hypertext links embedded in one Web page is likely to lead one to the same sites generated by a search. Nevertheless, a systematic search with one of the search engines is an excellent place to begin especially when one does not know even a single pertinent WWW site.

Lycos is reputed to be the largest and claims access to eight million Internet locations (URLs), while Webcrawler is updated more frequently. Infoseek contains about 400,000 Web links and is commercially available with a monthly fee, but it allows for the most sophisticated Boolean (and/or) search strategies. A free demonstration search is available from their Web page. Yahoo also provides extensive search options including its own hierarchically-organized lists, and hyperlinks to other major search engines such as Savvy Search, which actually sends your query in parallel to many other search engines including Yahoo, Lycos, Webcrawler and others—about fifteen in all—and then displays them in a homogenous form. Yahoo also has many links to resources on the topic of the Internet itself.

To test fly through cyberspace, we initially searched for sites of interest to transpersonal psychologists using the term "transpersonal." The Infoseek search engine produced 69 "hits." The Lycos search engine generated 134 hits for this term. Several hours were then spent checking out the many scholarly, thoughtful and information-rich Web sites. It can be difficult to keep track of where one is in cyberspace after one has clicked from one Web site to another for a few hours. But one can create a bookmark for any Web site that one may want to return to. A search of WWW sites using the term "spiritual" also revealed some excellent sites. A list of some of the best is included below under "Hot Sites."

Then we tinned to the specific topic of cults and new religious movements. A search just for the term "cult" resulted in hundreds of hits. This term is associated with movie cults, fan groups and other unrelated areas. At this point, to narrow the search we used Boolean qualifiers. For clinicians interested in this area, a good combination turned out to be "cult" and "therapy." For researchers, a broader search that produced a high percentage of relevant hits was "cults" and "spirit." On the Yahoo search engine, there is a heading for "Cults" under "Religion" which is under "Society and Culture." The twelve sites listed there include articles ("A-Z of Cults" from the *Observer Life Magazine*), a link to the Recovering Former Cultists Support Network, and the excult archive

Web address: http://www.ex-cult.org

This is a useful site for clinicians and persons who have left new religious groups of all spectrums. It included contact information for organizations and publications, a bibliography, and links to many other Web resources. Despite the pejorative labeling of them as cults, it also included direct hyperlinks to WWW sites on Asian spiritual traditions including the Hare Krishna Home Page, Eckankar Home Page, Maharishi

International University, and through other linked Web sites, connections to Vipassana

http://www.Webcom.com/~imcuk/NLETTER.html

and Korean Buddhism WWW sites

http://www2.gol.com/users/acmuller/korbud.htm

These Asian religious groups are considered new religions by many religionists as they are adapted to the Western cultural context (Needleman, 1972). Most transpersonal psychologists would view these groups more sympathetically as new religious movements or spiritual groups, but at least direct access to their Web pages via a hyperlink is provided on the ex-cult Web page. The breadth of Internet resources on religion is too vast to begin to cover here, but information on groups from the Amish to Zoroastrianism is available, and most of the sacred texts of the world's religions are also available online. Searches for "religion" produced hundreds of hits, including many sites of high quality. For a more detailed review, see "Searching for God on the Net" (Geller, 1995).

But most of the Web pages located in our search were concerned with "destructive cults" with one Web page by that title:

http://www.algonet.se/~teodor/cult/welcome.htm

Many others focused on "killer cults," and Waco was one of the most frequent references within these Web pages. Yet there was also a Web page containing a glossary reviewing the distinctions between religions, sects, cults, denominations etc., which highlighted the respect for spiritual choices that transpersonal psychologists strive to maintain:

http://www.kosone.com/people/occult/glossary.htm

Some Web pages even propose criteria for distinguishing between a cult and a destructive cult, and the criteria overlap considerably with those proposed by Vaughan (1987):

http://virtumall.com/mindcontrol/fag.html

An article by Charles and Judy Tart entitled, "Help with Strange Experiences," that covered the Spiritual Emergence Network and other resources, was linked on several of these WWW sites. These searches on Lycos and Infoseek provided an excellent place for therapists, researchers, and persons in the midst of religious and spiritual problems, including issues related to involvement with cults and new religious movements, to locate WWW sites and other resources on the Internet.

HOT SITES FOR TRANSPERSONAL PSYCHOLOGY

Altered States of Consciousness

This Web page provides extensive links to other Web sites on parapsychology, dreams and lucid dreams, hypnosis and many other ASC-related topics.

http://www.utu.fi/~jounsmed/asc/asc.html

Networks, Sites, and Mailing Lists on Mystic

This is a very information-rich Web site with extensive hyperlinks to resources on some twenty-five spiritual movements such as the Krishnamurti Foundation of America, Sufi groups, Shamash (the Jewish WWW page), Taoism, Buddhism, the Swedenborg Information Center, a Web site that compares mysticism in world's religions, one on Gong research and dozens of others. It also lists a number of Web Zines—magazines available for free (usually) off of Web sites. A listing of organizations and institutes is also provided, with access to them as well as to commercial sites available via hyperlinks. Mailing Lists and Newsgroups are also listed.

http://www.linknet.it/Spirit/networks-mystic.html

Council of Spiritual Practices

The Council of Spiritual Practices describes itself as a transdenominational religious, educational and scientific organization set up to assist churches and other groups in cultivating spiritual practices. Although it has hypertext links to WWW sites on shamanism, unitive consciousness, philosophy, and sacred texts, primarily it houses the Entheogen Project "devoted to helping people who want to use entheogens to encounter primary religious experience." It provides links to many other sites which offer information on entheogens such as the Entheogen Law Reporter, the Multi-disciplinary Association for Psychedelic Studies, and Psychedelic Abstracts Online.

http://csp.org/csp/

Buddhist Studies WWW

A model of thoroughness, this is a good page to view if you are considering setting up a Web page. It is one of the many extensive lists disseminated by the Australian National University, which is a mainstay of scholars of religion for many years (discussed further below).

http://coombs.anu.edu.au/WWWVL-Buddhism.html

Tiger Team

This is another excellent site for Buddhistic studies.

http://www.new.newciv.org/TigerTeam

Spirit WWW

This site began as an archive of UsenetNews articles which Rene K. Mueller saved, but expanded to include hyperlinks to other Web sites on Mysticism, ASCs, Out of Body Experiences, Reincarnation, UFOs, Meditation, Theosophy, Mysteries, Astrology, and other topics. The stated intention is to provide links to "meta-lists"—other lists of Internet resources. Additional connections to Finding God in Cyberspace WWW site, which is the most comprehensive guide to religious resources (and includes many topics of interest to transpersonal researchers) and to the Findhorn Foundation WWW site (both described below), make this Web site an excellent place to begin. And it can be searched for keywords.

http://www.linknet.it/Spirit.html

Finding God in Cyberspace: A Guide to Religious Studies Resources on the Internet

John Gresham, the Webmaster and creator, writes, "This guide provides a selective listing of Internet resources of interest to religious studies scholars and students of religion. These resources will also be of interest to religious believers and those interested or curious about religious issues." Although only updated annually, information includes print sources on the Internet, online religious communities, digital resources and teaching resources. While short on links to new religious movements (e.g., no links to pagan sites or women's spirituality groups), this site provides extensive links to many ancient religious traditions that transpersonal psychologists also value as resources in their clinical work and research (e.g., materials on Buddhist ethics, Islamic religion, ancient religions etc.). This Web page also has good links to online teaching tools that might be instructive if you are considering teaching a class online.

http://www.dur.ac.uk/~dth3maf/gresham.html

Findhom Foundation

This Web site serves to introduce persons to the Findhom Foundation and describes their current programs and activities, but it also has good links to WWW sites on a number of transpersonal topics including spirit, environment, health, arts, and surf boards.

http://www.mcn.org/findhom/home.htmland

Included here is a list with brief descriptions of "gods, goddesses, and sundry immortals from around the world (somewhere between 3,000 and 4,000 at last count)." Bibliographies, mythological works, mailing list groups and newsgroups on specialized topics, and links to other Celtic, Arthurian, and mythology-related WWW sites abound. This is also a commercial site where the complete Godfiles are available for purchase. Such combined informational and commercial sites are becoming common on the Web.

http://www.the-wire.com/culture mythology/mythtext.html

Association for the Study of Dreams

This is the home page for the Association for the Study of Dreams, an interdisciplinary society devoted to inquiries into nighttime dreaming. Available at this site is information about the society, its publications (including sample articles), past and future conferences, and a bulletin board designed to encourage dialogue. Also a five-session non-credit course with dream work assignments designed for the general public will be available soon.

http://www.outreach.org/gmcc/asd

Association for Transpersonal Psychology

Some transpersonal organizations are also moving onto the Internet. The Association for Transpersonal Psychology site includes information about activities, events, member services, and publications. This page also includes information about this publication, *The Journal of Transpersonal Psychology*, and lists the published article titles and authors for years 1969-1995.

http://www.igc.org/atp/

The International Transpersonal Center's Web page is under construction. A WWW site on religious and spiritual problems is also under construction.

SEARCHING REFERENCE DATABASES

Searching the reference databases for journal articles, books, and other scholarly works is still a mainstay of academic thoroughness. Virtually all of the major databases that transpersonal psychologists would want to search are available online through the Internet, including PsycINFO (for psychology-related journals), Medline (with eight million references, most with abstracts), Social Science Citations, Anthro (for anthropology), mass media periodical databases, and many others in the social sciences, physical sciences and humanities. Some four hundred different databases are accessible through the Dialog database service, which is one of the most widely-used by universities.

Our initial searches were conducted by reference librarians at the California Institute of Integral Studies, the University of California at San Francisco, and the San Francisco VA Medical Center. However, the search process has become more userfriendly during the eight years of this Research Review series. We now conduct our own searches on Melvyl (the name for the system containing all of the many databases accessible through the University of California) after taking the basic twohour course taught at University of California Biomedical Library in San Francisco. Anyone affiliated with an institute of higher education can usually get a password so they can conduct searches from their home computer (with a modem) over the Internet. At many public academic institutions, it is possible for persons to conduct searches at the library site even if they are not affiliated (e.g., California citizens who cannot obtain a password can physically go into any of the public college or university libraries and conduct an online search). And many public libraries now provide access to the Internet, with some even providing remote online access for the public to many of the reference databases. But for persons who do not have access to the Internet through a university or other library, the Knowledge Index (which includes most of the Dialog databases), is available through CompuServe. Compu-Serve is one of the many online services (including America Online, Delphi and ones that connect directly to the Internet) which provide access to the Internet for a monthly fee, but CompuServe is the only one with Knowledge Index.

During previous searches, we learned that to conduct searches for religious and spiritual problems, we could not rely on just using these terms. Combining religion or problem generates an unwieldy number of references since these terms are too broad; combining them (spiritual and problem) misses many articles since the pre-DSM-IV literature rarely used this term to describe such difficulties. A recent search for spiritual problem conducted in October, 1995 did produce some references for the first time that were related to the new diagnostic category. But we have found that for more comprehensive searches, it is necessary to use much more specific terms. For example, to locate research articles for the 1988 Research Review article on mystical experiences (which can trigger a spiritual problem as the person struggles to integrate the experience), the search terms included: mysticS (in the Dialog reference database system, the \$ ending tells the computer to select any word containing the prior letters, e.g., mystical, mysticism), peak experiences, transcendent, transpersonal, spirits, visions and ecstasy. To identify research articles, the search terms utilized were: research, variable, experiments, rating\$, test\$, scale\$, statistic\$, methodolo\$, data and empirical. To be selected, an article had to contain key words in both the mystical experiences and empirical methodology. Our initial searches covered the PsycINFO, Medline, Religion Index, Sociological Abstracts, ERIC (education) databases.

For the subsequent Research Reviews articles on psychoreligious and psychospiritual dimensions of healing, we conducted searches of the research literature on "religioS" and "spirit\$" combined with the research terms mentioned above. To obtain clinical articles that were not research-based, we used the terms: therapy, treatment, and case reports. In these searches, only the PsychINFO, Medline, and Religion Index databases were searched because they had yielded the most relevant articles.

To conduct as thorough a review as possible, Larson, Pastro, Lyons, and Anthony's (1992) method for conducting a *systematic literature review* was followed, which

ensures that the review accurately reflects the most up-to-date and accurate research on the issue being studied. In this method, the reference lists of articles obtained by computer searches are studied to identify additional potentially relevant articles until a saturation point is reached and no new articles are identified. We also contacted many experts in the field to obtain pre-prints, unpublished manuscripts, talks, etc. that are not indexed.

To give readers a taste of the search procedure, we conducted online searches of both PsycINFO and Medline for this Research Review article. The first search was on Medline from 1990-1995 for all references with "cult" (written cult# in Melvyl, the University of California Library's database system) to get references containing both the terms "cults" and "cult" in the title, abstract, or descriptors. We got back a whopping 174,431 hits! Of course, many terms such as bacterial culture and cultural diversity have "cult" in them. A search for the whole word "cult" produced a manageable thirty-five references and "cults," twenty-five references. There was much overlap. A search written to include both "cult or cults" would have compiled a combined list (with no duplications). The two lists included articles we have included in previous articles (e.g., Galanter's (1990) comparison of cults and self-help groups, and Post's (1993) sensitive discussion of "the problematics of respect for religious meanings" which focuses on incidents of psychiatric coercion of members of new religious groups).

On PsycINFO, the search encompassed the years 1967-1995 and produced 339 citations. PsycINFO indexes books and book chapters, as well as many journals (such as the *Cultic Studies Journal*) which are not in Medline. A search of ERIC for the term "cults" produced 66 references from 1984 through September of 1995. There were many duplications from the searches of the three databases, but each database contained articles not in the others. A comprehensive search would need to include at least the Medline and PsycINFO databases and also the Religion Index (which was available online until recently, but is now available on CD-ROM—see below). Many articles appeared during these searches which are now being sought to add to our ongoing collecting of articles germane to religious and spiritual problems.

SEARCHING LIBRARIES, PUBLISHING HOUSES, AND SCHOLARLY COLLECTIONS

University Libraries

Most university libraries have made their catalogs and other databases available online through the Internet to members of their academic community, and some allow remote online searches of their catalog by the general public. To demonstrate the value of and procedure for conducting a search of a typical university library, the University of Alberta's library was searched (by JG). It uses a system called GATE, which is accessible over the Internet with a password, to organize its information sources, just as the University of California Library uses Melvyl. Through GATE, the U of A library system is connected to other university libraries in Canada as well as to the public library system of Edmonton. There is also a connection to library systems around the world including the Library of Congress and the National Library of Canada.

"Cults" was a valid subject heading in this library system and was defined as, "Here are entered works on groups or movements whose system of religious beliefs or practices differ significantly from the major world religions and which are often gathered around a specific deity or person." In contrast works on the major world religions are entered under "religions" while "sects" covers "works on religious groups whose adherents recognize special teachings or practices which fall within the normative bounds of the major world religions."

In doing a subject search of the U of A library holdings on "cults" 58 titles were identified. There were also 171 additional subject headings which may also house book titles on cults. The majority of these subject headings were classified by location. Under California, there were 21 titles all dealing with the Peoples Temple. Another 26 categories were concerned with types of cults such as nativistic movements, Hindu, New Age, or Satanic.

Also available on the Internet through the GATE system are a variety of databases each with their own search tools. One of the more comprehensive is CARL UnCover, the Colorado Association of Research Libraries' database system which includes 20 separate databases and 420 library catalogues. (It can also be accessed directly over the Internet for no charge through telenet pac.carl.org).

It is both a searchable database (but generates titles only, not abstracts) and a document delivery system. Books are also available through this source as are journal, magazine and newspaper articles and transcripts of television and radio shows for a fee. Articles can generally be faxed within 24 hours and in some cases within one hour.

A search of CARL UnCover using "cults" revealed 123 items listed chronologically from the most recent. Examples from this list include *Sects and Cults, Democracy and the Law* from The Sydney Papers, 1994, and "Cults: Remains of the Day" which appeared in the Oct. 24, 1994 issue of *Time* magazine.

Another section of CARL UnCover was entitled "Journal Graphics Online" which consisted of television and radio transcripts, which may also be ordered. A search for "cults" had 900 hits. These included the transcript of ABC's "20/20" show which aired July 15, 1988 called "Children of God." An interesting feature of this database is that each record can be used as a source point for related searches for other shows, for example where the author of a book was interviewed.

Also available through CARL UnCover were U.S. Government Publications. A search of these using the keyword "cults" uncovered four publications including one from the U.S. Department of Justice Report on *Events at Waco, Texas Feb.* 28 - *April* 19,1993.

A submenu of GATES provides access to the Publisher's Catalogues Home Page where catalogues of publishers from around the world could be searched. The Readmore Collection of Publishers' Catalogs on the Internet is available directly over the Internet through its WWW site at

http://www.readmore.com/pub/pubcat-1.html

There were 196 publishers listed from 23 countries outside the United States and about 380 publishers from the United States. Unfortunately one could not conduct a search of all publishers for titles related to a topic of interest.

The home page of the American Psychological Association is available directly over the Internet through its WWW site at

http://www.apa.org/

and was also searched using their search engine. Nothing was found under the term "cults," however 31 items were listed under "New Religious Movements." These were not specific articles about them, but areas of the organization where material relevant to new religious movements could be found, such as APA convention information, the *Journal of Counseling Psychology*, and a section on The Clinical Practice of Career Assessment. The inclusion of this subject heading suggests that APA is becoming increasingly sensitive to religious movements.

The search described above does not begin to exhaust the database and other resources on the Internet that typical university libraries provide access to, but it is intended to give a sense of the many search avenues available.

SEARCHING NEWSGROUPS AND MAILING LISTS

Both mailing lists and newsgroups are available on the Internet and provide for a free exchange of idea, opinions, comments, resources, and events. Both promote interaction and discussion of a specific topic. But one *subscribes* to a mailing list after which a list server automatically e-mails messages to your e-mail address after anyone on the list posts them; one *visits* a newsgroup at an Internet address where old and new messages are stored. Some mailing lists are open to anyone who wishes to subscribe (although you must have an e-mail address on the Internet which can be obtained through an online service, school, or organization, or business), while other mailing lists are open only by invitation or require an application to be accepted. Estimates are there are at least 20,000 of each type (Lichty, 1995). Many mailing lists and newsgroups are on transpersonal topics such as shamanism, holotropic breathwork, spirituality and psychiatry. One mailing list describes itself as an open unmoderated discussion about themes in transpersonal psychology. To subscribe, send the message "SUBSCRIBE TRANSPSYCH-L" to

listserv@newciv.org

Through my (DL) subscription to the GTU mailing list, I learned that the Graduate Theological Union (GTU) Library in Berkeley, California, which is sponsored by seven graduate Theology schools (most of which are located nearby on "Holy Hill"), has a special New Religious Movements collection

focusing on alternative religious and quasi-religious groups which are new to the U.S. or have grown significantly since 1960. Information concerning Hinduism, Sikhism, Sufism, occult and metaphysical movements, neo-paganism, witchcraft, new age communes, femi-

nist spirituality, and human potential movements is included. Books, audiocassettes, phonodiscs, and periodicals are integrated into the main collection. A collection comprised of research papers, and ephemera from and about over 500 groups is housed. (GTU Library handout).

The posting led me to visit the GTU Library to check out this special collection, which would be valuable for any serious study of new religious movements. The visit also revealed some resources that are not currently available online, such as *The Alta Religion Database on CD-ROM* which is a primary resource for locating journal articles, essays, book reviews and theses in the field of religious studies. It is actually five distinct indexes that can be searched as one: Religion Index One: Periodicals; Religion Index Two: Multi-author Works; Index to Book Reviews in Religion; Research in Ministry; Methodist Reviews Index. In our previous searches for the Research Review series, the Religion Index One (which was available through the Internet on Dialog until recently) proved useful in locating articles on the assessment and treatment of religious and spiritual problems that were published in pastoral counseling journals which are not indexed in PsycINFO or Medline. Another reference database at GTU is *Religious and Theological Abstracts on CD-ROM*, which indexes forty journals not included in the Religion Index One.

Unlike e-mail sent back and forth on mailing lists, postings on newsgroups are public. Anyone can browse, read messages, and participate in the ongoing discussion. Also, newsgroups may be accessed on multiple sites. Consequently there are search engines for newsgroups, such as Deja News, which searches for terms within the postings of newsgroups. The results show the date, subject of posting, name of newsgroup, and e-mail address of the poster. A search of the term "cult" yielded an unwieldy 7232 references including many to newsgroups on guns and recreational autos. Combining "cult and spirit" generated 156 newsgroups that discuss topics including yoga, psychedelic drugs, meditation, Christianity, and one for former members of cults at

alt.support.ex-cult

With this address, anyone with Internet access can go to the site where the postings are stored and read them. A search of newsgroups for the term "religion" uncovered over sixty different newsgroups including

alt.recovery.religion, alt.religion.shamanism, soc.religion.eastem, and tx.religion.pagan

There are many groups on transpersonal topics which begin alt.consciousness such as

alt.consciousness.mysticism

Due to time constraints, none of these newsgroups were visited, although many might be germane to religious/spiritual problems. However, particularly illuminating exchanges from newsgroups often make their way onto Web pages. A series of postings entitled "Is This a Cult?" was linked to the ex-cult.archive Web page and a few are included below to give the flavor of the content of newsgroups (although many exchanges are mundane or limited to postings that simply say "I agree.")

I recently met a new friend who has been involved for the past ten years with a group called something like the Society for Creative Anachronisms. This group dresses up in middle ages garb, listens to the music of the time, as well as eating and drinking the food and beverages of that age. It all sounds innocent enough but he also said that he lives his life by the values and beliefs held by the group. They also have knights and kings which are highly respected positions with many perks and it all seems very structured and rigid. Does anybody have any experience with this group and would it be considered a cult?

What followed was an enlightened discussion of issues involved in determining whether the SCA or any group should be considered a cult. Two of the postings are included below:

I think that the way to evaluate this group is to ask questions like: Is the individual free to leave? Do they monopolize an individual's time? How is free thought treated? I suspect that the answers would be negative for this group.

The SCA is not a cult. It is a form of recreation... it can take up as much or as little of your attention as you wish. Some people go to one event a year, others go to the weekly meeting, the dance practice, the fighting practice, the local cooking guild, etc. all in one week, and go to a feast/toumament/dance three weekends out of five. As for leaving—just leave—no SCA group I have ever encountered would try to stop you. ... Honours are earned, and kingships are won—and for a limited term—usually 4 to 6 months depending on the kingdom. No one can succeed themselves as king. For more information, pop over to rec.org.sca, and enjoy the debates ...

OTHER RESOURCES

The above searches did not cover the entire range of resources available on the Internet. Many resources can still only be accessed through the TELNET, FTP or WAIS protocols, which were the major ways that information was sent across the Internet prior to the development of the WWW. Fortunately, these are rapidly being revised into more easily available Web sites. For example, the extensive bibliographies from the Clearing House for Social Sciences Subject Oriented Bibliographies at the Australian National University, where the Buddhism WWW site discussed earlier resides, was formerly accessible only by FTP, but is now available from a Web site:

http://coombs.anu.edu.au/CoombsWebPages/BiblioClear.html

In addition, many Web sites have hyperlinks to Telnet, FTP, and WAIS sites, so relevant ones are often available via the Web.

CONDUCTING RESEARCH ON THE INTERNET

As one researcher points out, "'Computer Cultures' is a relatively new field and many scholars are still unaware that cyberspace community groups offer great scope for both qualitative and quantitative studies on almost any conceivable topic" (Beaulieu, 1993, p. 11). In Beaulieu's study entitled "Observing Unobserved: Computer Net-

works as a Source for the Study of Religion," she "lurked" (read others' messages but did not post her own) on three different religious newsgroups: born-again Christian, liberal Catholic, and pagan. She was able to describe significant differences in mores, ethics, social values, narrative themes and communication styles across these three groups. Hawes (1995) also conducted a study, although less formal, of online spiritual communities. His research question was: Is it possible to have an authentic feeling of spiritual community when the interactions with others comes by way of computer screen and the tap of fingers on plastic? With the evolution of online spiritual communities as well as newsgroups and other groups focused on transpersonal topics (e.g., dream groups), transpersonal researchers have new territory for conducting studies.

CONCLUSION

The WWW, with its ease of use, is an essential tool for researchers. It also makes resources on transpersonal issues readily available to the public. Once you are up and running with a Web Browser, you can visit the libraries of the world, send e-mail to, dialogue with or even collaborate with distant colleagues in academia, download extensive bibliographies on virtually any topic, keep abreast of current research, get information about transpersonal organizations and publications, and visit many strange and wonderful Web pages. The only difficulty one is likely to encounter getting hooked on to the Internet is during the set-up phase where modem, software and hardware must be configured. But once installed, cruising through the World Wide Web involves simply pointing and clicking. To learn more about navigating the Internet, check out the free course at

http://www.brandonu.ca/~ennsnr/Resources/Roadmap/Welcome.html

Jean Houston has compared this phase of computer networking on the Internet to the early development of the first great civilizations along the Nile, Tigris, and Yangtse rivers: "I suggest that a new and very complex culture is growing up along the great river of electronic information" (Hawes, 1995, p. 36).

But this glowing review of the Internet's potential to be a resource for researchers and a positive transformative force on society should not overlook the potential down sides as well. Anyone can put up a Web site about anything. While this can be seen as furthering the decentralization and democratization of power relationships, especially as they pertain to information dissemination, the lack of any quality control also permits the creation of worthless and even misleading WWW sites. Already there are many vapid and crass commercial Web sites. However, there are some counterbalancing trends as well. Some organizations provide ratings of Web sites. For example, the ASC site described earlier under "Hot Sites for Transpersonal Psychology," was rated by one Web watching organization as in the top five percent of Web sites.

There are also more serious issues to consider about the long-term impact of the Internet. As people communicate more and more in cyberspace, do they lose touch with their communities and bioregions? Does spending more and more time in front of a monitor have a deleterious effect on family life (as has been demonstrated with

television watching [Mander, 1992])? Will the Internet promote further disconnection between mind and body as communication is stripped of its visual, kinesthetic, olfactory and other sense components, and people spend more time in physically unchallenging activities? While these issues should be carefully considered and investigated, the Internet is here to stay and is expanding exponentially. It is also an important resource for researchers in transpersonal psychology.

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A SURVEY OF MEASURES OF TRANSPERSONAL CONSTRUCTS¹

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It has been the contention of some researchers that transpersonal psychology should give serious consideration to the development, validation and use of standardized assessment instruments designed to measure transpersonal constructs as a means of facilitating the growth of the area as an empirical science (e.g., Friedman, 1983; MacDonald, Tsagarakis & Holland, 1994). In the spirit of this position, the authors of the present paper reasoned that one possible avenue of generating interest in such research tools would be to provide investigators with a comprehensive, accessible and easy-to-understand resource which presents information on measures currently available in the literature. To this end, we undertook two literature surveys to uncover measures which are available for use in transpersonally oriented research and we present our findings below. However, before discussing the nature and results of our literature searches, we believe it is important to outline the benefits and drawbacks of objective tests as well as their implications for the transpersonal domain.

STANDARDIZED ASSESSMENT INSTRUMENTS AND TRANSPERSONAL RESEARCH

Conventional quantitative research methodologies (which include standardized testing) have often been viewed by transpersonal theorists as an ineffective means of

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investigating not only the transpersonal domain (e.g., Grof, 1985; Washburn, 1988; Wilber, 1990) but also, people in general (Gilgen, Cho & Stensrud, 1980). In fact, much of the transpersonal perspective regarding objective testing can be summarized by Wilber (1990):"... once you have translated the world into empiric measurement and numbers, you have a world without quality, guaranteed" (p. 26). Indeed, given the great difficulties in simply describing and communicating transpersonal experiences (Wilber, 1977, 1990), it may seem that standardized tests, which tend generally to translate the individual into a number, have virtually no hope for furthering knowledge of the transpersonal domain.

Though we are in agreement with the common observation that transpersonal experiences are primarily trans-verbal and trans-logical and can only truly be understood through direct experiences (thus limiting all quantitative and ultimately all qualitative methods), we believe that the value of testing for transpersonally oriented research can be better appreciated if it is viewed not as a means of accessing and understanding transpersonal experience directly, but instead as a tool which can be used to explore the "expressions" of such experiences. By expressions, we are referring to the behavioral, physiological, psychological (cognitive/emotional), and sociological correlates of transpersonal experience as well as the theories (religious and secular) generated to explain these experiences (MacDonald et al., 1994).

This view of objective testing is consistent with the current understanding of the purpose, nature and limits of transpersonal psychology in three ways which we argue qualify psychometric testing as a research method worthy of consideration. First, Walsh and Vaughan (1993) define transpersonal psychology as "the area of psychology that focuses on the study of transpersonal experiences and related phenomena. These phenomena include the causes, effects and correlates of transpersonal experiences and development, as well as the disciplines and practices inspired by them" (p. 203). Given this definition, it can be understood that transpersonal psychology involves not only the direct study of transpersonal experience but also the study of the expressions and correlates of this experience, a task for which psychometric tests could prove valuable.

Second, conventional psychology has been confronted with the difficulty of defining and measuring many of its central constructs including emotion, attitudes, personality, intelligence and psychopathology. In all cases, empirical research has been made possible by linking (actually reducing) the construct to some behavior or verbalization which is viewed as embodying the construct (i.e., by operationalizing the construct). Moreover, with all the constructs mentioned above, the development and use of standardized quantitative assessment tools has flourished largely because the expression of the construct has lent itself to quantification (e.g., it can be measured with anything ranging from simple frequency counts of behaviors and verbalizations to the behavioral sequence leading to the proper completion of a behavioral task). Interestingly, one of mainstream psychology's most compelling and empirically robust theories of personality, the five factor model (Digman & Inouye, 1986; Goldberg, 1993; McCrae & Costa, 1987), has been partly developed through an examination of natural language descriptors thought to be associated with personality (e.g., Norman, 1963). In light of the fact that there are language descriptors which have been developed to express aspects of transpersonal experience and identity (e.g.,

transcendental, mystical, spiritual, holy), as well as generally predictable behaviors (and behavior changes) associated with such experiences, it appears that it may be possible to develop measures of various expressions of transpersonal experience based on how the experients use language in describing their experience and/or in how they behaved before, during and/or after the experience. Research has appeared which indicates that groups consisting of schizophrenics, individuals describing hallucinogenic drug states, individuals describing experienced mystical states, and individuals describing important personal experiences, can be differentiated based upon their use of language descriptors (Oxman, Rosenberg, Schnurr, Tucker & Gala, 1988)².

Third, empirical research using conventional quantitative methodologies to examine the relationship of biopsychosocial and behavioral functioning to spiritual practice and experience is relatively well represented in the literature (e.g., Murphy, 1993). In addition, published research has been appearing which indicates that standardized measures of transpersonal constructs can be utilized effectively to support transpersonal theory (e.g., Cloninger, Svrakic & Przybeck, 1993; Friedman, 1983; MacDonald et al., 1994).

BENEFITS AND LIMITATIONS OF TESTS FOR TRANSPERSONAL RESEARCH

We strongly believe that the argument outlined above provides a rationale for pursuing the development and use of tests of transpersonal constructs in transpersonally oriented research. However, investigators opting to rely on paper and pencil measures which operationalize transpersonal constructs must be wary of their limitations both in the general sense and specifically in relation to the transpersonal area. Most of these limitations are interrelated but can be summarized as follows:

1) The operationalization problem (a.k.a. the problem of ineffability). The most obvious shortcoming of psychometric testing is the difficulty of developing tests which adequately operationalize a construct of interest. Though operationalization is inherently problematic because it results in the reduction of a phenomenon/construct to a highly constrained set of observable criteria, this limitation of testing derives most of its substance from the facts that a) in order for a test to be considered adequate, people who use a test and/or who are interested in the construct the test assesses, must come to some degree of consensus as to what type of expressions (i.e., behaviors, verbalizations) the construct embodies, and b) there has never been total agreement in any area of psychology regarding what universe of expressions constitute any given construct. This lack of agreement among scientific psychologists regarding the operationalization of any construct has contributed to the proliferation of tests for virtually every construct studied in the discipline (e.g., personality, intelligence, psychopathology; Comrey, 1988).

For the transpersonal domain, the problem of operationalization can also be seen as a major obstacle for psychometric testing. Insofar as the purpose of transpersonal psychology might be limited to the study of transpersonal experience, it has already been established that valid and complete knowledge about transpersonal states of consciousness cannot be obtained through conventional empirical methodologies.

Consequently, because such experiences are inherently ineffable, any attempt to operationalize and measure them through the use of psychometric tests, will ultimately prove insufficient in capturing their essence. Thus, a transpersonal test cannot measure anything more than an expression of spiritual experience.

2) The validity problem. Once a test has been constructed to measure a specific construct, there is then the problem of validity; how can test developers empirically demonstrate that their tests are measuring what they claim to be measuring? Though there are numerous methodologies and statistics available to help explore that question (e.g., see Anastasi, 1988; Cronbach, 1990), it is the position of modem psychometric theory that a test can never be validated in any absolute sense since the validity of any standardized measure is limited to the populations and contexts with which the measure has been empirically validated (i.e., limited external validity/generalizability). For example, a test which has been validated on white, middle-class North Americans may not provide valid information on individuals belonging to a different race, culture, and/or socio-economic class. Accordingly, all psychometric tests are highly limited in what they can tell us about human functioning.

For transpersonal psychology, the task of establishing the construct validity of a psychometric measure is especially problematic for at least two reasons. First, if it is accepted that transpersonal experience is ineffable and beyond adequate operationalization, it then is inevitable that there will be considerable skepticism regarding any claims to a test's validity regardless of the existence of any empirical support for the test. Second, if a test is ever going to gain any acceptance within the transpersonal movement, it will have to demonstrate that it can reliably differentiate between a) individuals who are known to have had spiritual experiences and people who are known to have not had such experiences, and b) individuals who are known to have had different types of transpersonal experiences. However, in order to complete such "known groups" validation, test developers need access to a sufficiently large population of people who are accurately judged as having had legitimate transpersonal experiences. As we are sure the reader can imagine, the activity of securing such a population (or a respectable sample from such a population) for test validation purposes will likely prove to be exceedingly difficult.

3) The "illusion" of spirituality problem (a.k.a., the response bias³ problem or the spiritual materialism problem). This limitation derives its name from an article by Shedler, Mayman and Manis (1993) entitled "The Illusion of Mental Health." Shedler et al. (1993) demonstrated that paper and pencil measures of mental health/psychopathology cannot differentiate between psychologically healthy individuals and self-deceptive unhealthy individuals who reported on the tests that they were healthy. If psychometric testing in conventional areas of psychology is being challenged due to difficulties with response bias, then the validity of measures of transpersonal constructs must also be called into question. The reason for this can be stated as follows: can any measure designed to assess constructs such as degree of spiritual realization differentiate between people who are truly spiritual and those who endorse test items indicating they are spiritual when in fact they are not? As a more specific instance, can a psychometric test differentiate between a spiritual person and an individual who might be guilty of spiritual materialism? (Spiritual materialists are those who "de-

ceive [themselves] into thinking [they are] developing spiritually when instead [they are] strengthening [their] egocentricity through spiritual techniques" [Trungpa, 1973, p. 3].) Given the current state of knowledge about objective testing, it appears improbable that measures of transpersonal constructs would be any more successful in controlling response bias/style than conventional measures. In consideration of the fact that there are no satisfactory psychometric solutions to this limitation at present, alternative criteria (e.g., clinical judges) which aid in the reliable detection of test response bias/style should be utilized in conjunction with objective measures whenever possible.

Despite these difficulties, we contend that the development and use of psychometric tests have numerous benefits for transpersonal research including the following: 1) once adequate training in psychometrics and test construction is obtained, tests are relatively easy to construct, use, score and interpret; 2) tests can be completed in a relatively short period of rime and can be administered both individually or to groups; 3) tests allow for standardized measurement of a construct thereby making it easier to compare findings from different studies and easier to replicate existing findings; 4) tests allow for fast accumulation of empirical literature on a wide variety of theories and phenomena; 5) tests can be used to verify transpersonal theory (MacDonald et al., 1994); and 6) tests allow for easier comparison between transpersonal concepts and mainstream psychological concepts. Thus, psychometric tests could promote a dynamic link between transpersonal concepts and the nomological net (Cronbach & Meehl, 1955) of mainstream psychological constructs.

In conclusion, it is our position that the transpersonal area has much to gain in using standardized tests in research. However, we must emphasize that psychometric testing is a limited methodology which can only provide useful knowledge if used properly (e.g., by having an adequate knowledge of the limits of the validity of a test and using the measure accordingly). Even though we are confident that testing research, as a quantitative research methodology, is capable of generating useful information relevant to the transpersonal domain, we recommend that it be used in conjunction with more qualitative research strategies, such as the phenomenological method (Patrik, 1994; Walsh, 1995), in studying transpersonal states of consciousness.

Literature Search: Parameters

This article reports the findings of two literature searches, one completed in 1992 and a second in late 1994. The searches, undertaken at three Canadian universities, partially involved the use of the PsychLit and Dissertation Abstracts CD-ROM databases. The authors, however, also obtained numerous references from books and journals of which they had knowledge at the time of the searches. In the computerized database searches, identical search terms were used. These keywords consisted of the following: spirituality, spiritual, spirit, mystical, mysticism, transpersonal, holistic, test, measure, form, questionnaire, survey, and inventory. These terms were used in combination with each other in order to ensure that as many references as possible were obtained. Note that we did not rely on any search terms explicitly involving

religion or religiosity. It was our intent only to survey the literature with regard to measures of transpersonal constructs which are not delimited by traditional notions of religion or religiosity.

Results of Literature Searches

The results of the searches were impressive; numerous measures were uncovered. However, when we made closer inspection of the literature obtained, we observed, as did Lukoff, Turner and Lu (1993) in their survey of spirituality assessment tools, that many instruments make use of terms involving religion/religiosity, most notably from a monotheistic Judeo-Christian perspective (e.g., belief in, or experience of, God). Though there are a few measures which do not rely on such terminology (e.g.. Spiritual Orientation Inventory; Self-Expansiveness Level Form; Spirituality Assessment Scale) and others which do not use it in an explicitly denominational manner (e.g., Index of Core Spiritual Experience), it is reasonable to conclude that many measures of transpersonal constructs appear to be confounded with religion/religiosity at least to some extent. Consequently, researchers must be skeptical of the construct validity of most of the tests designed to assess transpersonal constructs. In particular, investigators relying on these assessment tools should give considerable thought to the degree of construct purity and validity they need in a measure if they plan on using it in a study with any given subject population. For instance, it appears very likely that measures relying on theistic terminology will demonstrate greater empirical sensitivity to individuals who subscribe to a monotheistic faith than to those people who practice nontheistic or polytheistic forms of religion/spirituality (Lukoff et al., 1993). In light of this, investigators should exercise caution in their selection of measures since the validity of the measure may be compromised or enhanced by the subject population tested4.

Notwithstanding the confound of religious and transpersonal constructs which limits many existing measures, we were still able to uncover a wide variety of questionnaires which appear to have promise as research tools in the transpersonal area. Tests which receive discussion in this article were selected because they demonstrated some, if not all, of the following characteristics: a) they seem to embody transpersonal constructs in a manner which minimize or eliminate a confound with religious concepts; b) they appear to be assessing unique constructs relative to other measures; c) they appear to have satisfactory validity and reliability; and/or d) they have been used effectively in research. Table 1 provides summary overviews of the measures discussed.

In selecting questionnaires which assess unique constructs, it was our intent to present the broadest range of measures possible in order to help facilitate new lines of research. In keeping with this, we have included measures of intrinsic religious motivation and paranormal beliefs/experiences in this article. The inclusion of the former measures was done because they have exhibited robust empirical relationships with transpersonal phenomena and concepts. Conversely, measures of paranormal experiences/beliefs have been included because they appear to hold potential for some areas of transpersonal research; though some theorists make a distinction between transpersonal and parapsychological phenomena (e.g., see Wilber, 1990, p.

73), others (e.g., Neher, 1990) assert that such phenomena fall under the umbrella of a psychology of transcendence.

It is important to note that there are a number of measures which assess constructs that a) are not entirely reducible to religion or religious constructs, and b) seem potentially useful for transpersonally oriented research, which do not receive discussion in this paper. These measures, and their primary references, are listed in a table at the end of the article (see Table 2). Lastly, the paper concludes with a table listing sources for additional measures and literature discussing issues relevant to testing (see Table 3).

Spirituality Assessment Scale (SAS; Howden, 1992)

The SAS was created in response to the absence of measures of spirituality for use in nursing research.

The SAS is designed to assess a conception of spirituality called the "spirituality model" which Howden (p. 6) developed "through the processes of concept analysis, synthesis and derivation.... as well as theory construction" using various definitions of spirituality found in the philosophical, psychological, sociological, theological and nursing literature (e.g., Burkhardt, 1989; Frankl, 1963; Hungelmann, Kenkel-Rossi, Klassen & Stollenwerk, 1985; Jackson, 1980; Pilch, 1981; Reed, 1987; Sinnott, 1969; Vaughan, 1986).

According to the spirituality model, spirituality "is the dimension of one's being that is an integrating or unifying factor which is manifested through unifying interconnectedness, purpose and meaning in life, innerness or inner resources, and transcendence" (Howden, 1992, p. 15). Unifying Interconnectedness (UI) is referred to as "the feeling of relatedness or attachment to others, a sense of relationship to all of life, a feeling of harmony with self and others, and a feeling of oneness with the universe and/or a universal element or Universal being" (Howden, p. 15). Purpose and meaning in life (PML) is defined "as the process of searching for or discovering events or relationships that provide a sense of worth, hope, and/or reason for living/ existence" (p. 15). Innerness or inner resources (IN) is said to involve "the process of striving for or discovering wholeness, identity, and a sense of empowerment. Innerness. . . [is] manifested in feelings of strength in times of crisis, calmness or serenity in dealing with uncertainty in life, guidance in living, being at peace with one's self and the world, and feelings of ability" (p. 15-16). Finally, Transcendence (TR) is seen "as the ability to reach or go beyond the limits of usual experience; the capacity, willingness, or experience of rising above or overcoming bodily or psychic conditions; or the capacity for achieving wellness and/or self-healing" (p. 16). The SAS has been designed to assess spirituality as demarcated by this definition.

The SAS as it was originally designed consisted of 44 items and used a six-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). However, based upon an evaluation of the measure's reliability and the content validity, eight items were deleted. Thereafter, four more items were dropped from the SAS based upon interim reliability calculations using the 36-item version of the instrument. Finally, a principal components analysis of the 32-item version of the SAS using a sample of

TABLE 1A
CHARACTERISTICS OF MEASURES DISCUSSED

			CHAKACI EKISTICS OF	CHARACI ERISIICS OF IMEASURES DISCUSSED			
	Spirituality Assessment Scale (SAS)	Spiritual Orientation Inventory (SOI)	Index of Core Spiritual Experience (INSPIRIT)	Mystical Experiences Scale (M-Scale)	Peak Experiences Scale (PES)	Intrinsic Religious Motivation Scale (IRMS)	Self-Expansiveness Level Form (SELF)
Primary Reference(s)	Howden (1992)	Elkins, Hedstrom, Hughes. Leaf & Saunders (1988)	Kass, Friedman, Leserman, Zuttermeister & Benson (1991)	Hood (1975)	Mathes, Zevon, Roter & Joerger (1982)	llogc (1972)	Friedman (1983)
Construct Assessed	Spirituality	Spirituality	Core Spiritual Experience	Mystical Experience	Peak Experiences	Intrinsic Religious Motivation	Self-expansiveness (self-concept)
Number of Items	28	85	7 (Item 7 consists of 13 parts)	32	70	10	18
Subscales (Note: Numbers in parentheses arc the number of items belonging to each	1. Unifying Interconnectedness-UI (9) 2. Purpose and Meaning in Life-PML (4) 3. Innemess- IN (9) 4. Transcendence-TR (6)	1. Transcendent Dimension (13) 2. Meaning and Purpose in Life (10) 3. Mission in Life (9) 4. Sacredness in Life (15) 5. Material Values (6) 6. Altruism (7) 7. Idealism (10) 8. Awareness of the Tragic (5) 9. Fruits of Spirituality (10)	None	1. Ego Quality (4) 2. Unifying Quality (4) 3. inner Subjective Quality (4) 4. Temporal/Spatial Quality (4) 5. Noetic Quality (4) 6. Ineffability (4) 7. Positive Affect (4) 8. Religious Quality (4)	None	None	Personal Subscale (5) Middle Subscale (8) Transpersonal Subscale (5)
Response Format	Six-point Likert Scale (SD-Strongly Disagree; D-Disagree; DM-Disagree Moderately; AM-Agree Moderately; A-Agree; SA-Strongly Agree)	Seven-point Likert Scale (1-Intensely Disagree: 4-Neutral; 7-Intensely Agree)	Items 1-6 are Multiple Choice; Item 7: Four-point response scale (Definitely Disagree; Tend to Disagree; Tend to Agree; Definitely Agree)	Five-Point Likert Scale (+1-Probably True; -1-Probably not True; +2-Definitely True; -2- Definitely Not True; ?-Cannot decide)	True/False	Four-point Likert Scale (A- Strongly Agree; B- Agree; C- Disagree; D- Strongly Disagree)	Five-point Likert Scale (A- Very Willing; B- Somewhat Willing; C- Neutral; D- Somewhat Unwilling; E- Very Unwilling)
Time to Administer (Note: These times are approximate)	10 minutes	30 minutes	10 minutes	15 minutes	20 minutes	5 minutes	10 minutes

No formal norms; MacDonald et al (1994) N=209 Personal- 21.46, 2.92; Middle- 30.95, 4.49; Transpersonal- 14.58, 3.92	Test-retest- two-week .57.83 and 12-week .34.57 for subscales; Internal consistency- Coefficient alpha .58.79 for subscales; .58-79 for subscales; .56-81 for Personal and Transpersonal subscales only	Criterion, Convergent, Discriminant, Factorial	None	Friedman (1983)	MacDonald, Tsagarakis & Holland (1994)
No formal norms- see Hoge (1972) for item score means	Internal consistency (Kuder-Richardson) = .90	Criterion, Convergent, Factorial	None	Hoge(1972)	Hood (1975); Powell & Thorson (1991)
No formal norms; Mathes et al (1982) N=116 Males= 50.15, 11.10; Females= 52.10, 10.96	Internal consistency (Kudcr-Richardson) = .94 for men, .92 for women	Convergent, Discriminant	Half of the items are negatively worded	Eugene Mathes, Ph.D., Department of Psychology, Western Illinois University, Macomb, IL. 61455	Morneau, MacDonald, Holland & Holland (in press); Noble (1984)
No formal norms; Hood (1975) does not provide descriptive statistics	Items and Subscale to Total Score correlations= .2964	Convergent, Face Factorial validity questionnable	Half of the items are negatively worded	Hood (1975)	Caird (1988); Campbell (1983); Fite (1981); Hood (1977a, 1977b); Hood, Hall, Watson & Biderman (1979); Hood, Morris & Watson (1990); Lukoff &Lu (1988); Noble (1984); Propst (1979)
No formal norms; Kass, Friedman et al (1991) do not provide descriptive statistics	Internal consistency (alpha)= .90	Criterion, Convergent, Discriminant, Factorial- see Kass, Friedman et al (1991)	None	Kass et al (1991)	None
No formal norms; Elkins et al (1988) do not provide descriptive statistics	Internal consistency (alpha); Subscales= .7595	Content, Criterionsee Elkins et al (1988)	20 items are negatively worded	Contact Sara Elkins, 33443 Cape Bay Place. Dana Point, CA 92629	Lee & Bainum (1991); Smith (1991); Zainuddin (1993)
No formal norms Howden (1992) N=189; UI-44.95, 4.86; PML-20.38, 3.20; IN-45.63, 5.00; TR-28.23, 3.96 Total SAS-139.18. 14.30	Internal consistency (alpha); Total= .92; Subscales= .7291	Content, Factorial, Criterion- see Howden (1992)	None	Howden (1992)	None
Norms (Note: When numbers are reported, they represent the Mean and Standard Deviation, respectively)	Reliability	Validity (Note: The types of validity which have received support are stated)	Controls for Response Bias	Availability	Other References

TABLE IB
CHARACTERISTICS OF MEASURES DISCUSSED

	Primary Reference(s)	Construct Assessed	Number of Items	Subscales (Note: Numbers in parentheses are number of items belonging to each subscale)	Response Format	Time to Administer (Note: These times arc approximate)
Transpersonal Orientation to Learning (TOTL)	Shapiro & Fitzgerald (1989)	Transpersonal orientation to learning	40	1. Fantasy Techniques Applied in Schools (10) 2. Mysticism Preferred to Science as an Epistemology (10 3. Mystical/Occult/ Paranormal Techniques Applied to Schools (10) 4. Transcendent Consciousness (10)	Five-point Likert Scale (SA- Strongly Agree; A- Agree; U- Uncertain, D- Disagree; SD- Strongly Disagree)	20 minutes
Ego Grasping Orientation (EGO)	Knoblauch & Falconer (1986)	Ego Grasping (Taoist Orientation)	20	None	True/False	10 minutes
East-West Questionnaire (EWQ)	Gilgen & Cho (1979a)	Eastern and Western Worldviews	89	1. Man and the Spiritual (4) 2. Man and Nature (16) 3. Man and Society (16) 4. Man and Himself (16) 5. Rationality of Man (16)	Five-point Likert Scale (1 -Agree Strongly, 2-Agree Moderately, 3-No Opinion; 4-Disagree Moderately, 5-Strongly Disagree)	25 minutes
Paranormal Beliefs Scale (PBS)	Tobacyk & Milford (1983); Tobacyk (1991)	Paranormal Beliefs	25	1. Traditional Religious Belief (4) 3. Witchcraft (4) 4. Superstition (4) 5. Spiritualism (3) 6. Extraordinary Life Forms (3) 7. Precognition (3)	Five-point Likert Scale (1-Strongly Disagree; 2-Moderately Disagree; 3-Undecided; 4-Moderately Agree; 5-Strongly Agree)	10 minutes
Assessment Schedule for Altered States of Conscious- ness (ASASC)	van Quekelberghe, Altstotter-Gleich & Hertweck (1991)	Altered States Experiences	325	Extraordinary Mental Process (22) Parapsychology, own experiences (11) Parapsychology, own view (9) Esoterics (16) Esoterics (16) Esperiences (40) Negative Mystic Experiences (40) Negative Myst	Five-point Likert Scale (0-Not At All; 1-Just a Little; 2- To Some Extent; 3- To a Large Extent; 4- Completely)	90 minutes
Integration Inventory (II)	Ruffing-Rahal (1991)	Well-being Integration	37	None (23)	Six-point Likert Scale Scale (1-Strongly Disagree, 2-Moder- ately Disagree, 3-Slightly Disagree, 4-Slightly Agree 5-Moderately Agree 6-Strongly Agree)	20 minutes
Boundary Questionnaire (BQ)	Hartmann (1991)	Ego Boundaries	145	1. Sleep/Wake/Dream (12) 2. Unusual Experiences (19) 3. Thoughts/Feelings/ Moods (16) 4. Childhood/Adolescence/ Adulthood (6) 5. Interpersonal (15) 6. Sensitivity (5) 7. Neat/Exact/Precise (11) 8. Edges/Lines/ Clothing (20) 9. Opinions About Children and Others (8) (10. Opinions About Sopulations About Children and Others (9) (11. Opinions About People Nations, Groups (14) 12. Opinions About Beauty (7) 13. Opinions About Beauty (7) 14. Opinions About Beauty (7)	Five-point response scale (0-no, not at all, not true for me to 4- yes definitely, definitely true of me)	45 minutes

No formal norms- see Hartmann (1991) for descriptive statistics for a variety of different samples	Internal consistency (alpha)= .93 for total scale (138 items)	Criterion, Convergent, Discriminant, Factorial	One-third of items are worded in the opposite	Hartmann (1991)	Adair (1990); Celenza (1986); Galvin (1990); Levin (1986); Levin, Galin & Zywiak (1991)
No formal norms; Ruffing-Rahal (1991) N=182; 168.97, 23.04	Internal consistency (alpha)= .91	Content, Convergent, Criterion- see Ruffing-Rahal (1991)	Exclusion of neutral response option; Half of items are negatively worded	Ruffing-Rahal (1991)	None
soe No formal norms- see vanQuekelberghe, et al (1991) for descriptive statistics for subscales	Internal consistency (Ciuttman split-half, alpha)8186 and .8098 for subscales	Content, Criterion, Discriminant, Factorial	Avoidance of pathological wording in items	Contact R. van Quekelberghe, Universitat Koblenz- Landau; Fachbereich 8: Psychologie; Im Fort 7; 6740 Landau, Germany	None
Norms available for PBS No formal norms- and PBS-R in Tobacyk see (1991); Tobacyk & vanQuekelberghe, Milford (1983) provide et al (1991) for descriptive statistics on descriptive statistic a sample of 424 subjects for subscales	Test-retest= 89 for total scale and .60- 84 for subscales	Convergent, Discriminant	None	Tobacvk & Milford (1983)	Davies (1988); deBarbenza, Claribel & deVila (1989); Gagne & McKelvie (1990); Irwin (1990); Tobacyk (1984, 1985a. 1985b); Tobacyk & Milford (1984, 1988); Tobacyk, Milford, et al (1988); Tobacyk, Miller, et al (1988); Tobacyk & Wilkinson (1990); Wilkinson (1990);
No formal norms- see Gilgen & Cho (1979a, 1980) and Cho & Gilgen (1980) for descriptive statistics on a variety of different samples	Test-retest= .76 for total scale	Criterion, Convergent, Discriminant	East-West item pairs constructed to neutralize response set	Gilgen & Cho (1979a)	Cho & Gilgen (1980); Gilgen & Cho, (1979b, 1980); Gilgen, Cho & Stensrud (1980)
No formal norms; Knoblauch & Falconer(1986) N=68-7.97.4.43	Internal consistency (Kuder-Richardson, alpha)=.79, .81; Test-retest72	Criterion, Convergent, Discriminant	Seven items are scored in the reverse direction	Knoblauch & Falconer (1986)	Knoblauch (1988, 1990); Knoblauch & Bowers (1989); MacDonald et al (1994)
Available from test author at address below. Shapiro & Fitzgerald(1989) report descriptive statistics for four samples	Internal consistency; Split-half=98 for total scale; Alpha= .96 for total scale and .8293 for subscales	Content, Criterion, Convergent, Factorial validity ambiguous	None	Stewart B. Shapiro, Department of Education, University of California, Santa Barbara, CA 93106-9490	None
Norms (Note: When numbers are reported, they represent the Mean and Standard Deviation, respectively)	Reliability	Validity (Note: The types of validity which have received support are stated)	Controls for Response Bias	Availability	Other References

TABLE 1C
CHARACTERISTICS OF MEASURES DISCUSSED

	Personal Philosophy Inventory (PPI)	Holistic Living Inventory (HLJ)	Death Transcendence Scale (DTS)	Temperament and Character Inventory (TCI)	Phenomenology of Consciousness Inventory (PCI)	Spiritual Well Being Scale (SWBS)
Primary Reference(s)	Persinger & Makarcc (1987, 1993)	Stoudenmire, Batman, Pavlov & Temple (1985)	Hood & Morris (1983)	Cloninger, Svrakic & Przybeck (1993)	Pekala (1982); Pckala, Steinberg & Kumar (1986)	Paloutzian & Ellison (1982); Ellison (1983)
Construct Assessed	Presence of Temporal Lobe Signs	Holistic Living	Death Transcendence	Seven factor model of Psychobiological Personality	Dimensions of Phenomenological Experience	Spiritual Well-Being
Number of Items	140	80	23	226	53	20
Subscales (Note; Numbers in parentheses arc the number of items belonging to each subscale)	Information related lo Temporal lohe functioning (20) Beliefs (30) Control/M lindane Experiences (14) Admission (9) Total Temporal Lobe Signs (56)	1. Physical (20) 2. Emotional (20) 3. Mental (20) 4. Spiritual (20)	1. Biosocial (3) 2. Mystical (5) 3. Creative (5) 4. Nature (5) 5. Religious (5)	1. Novelty Seeking (40) 2. Harm Avoidance (35) 3. Reward Dependence (24) 4. Persistence (8) 5. Self-Directedness (44) 6. Cooperativeness (42) 7. Self-Transcendence (33)	Nositive Affect Negative Affect Altered Experience Visual Imagery Attention Altered Awareness Atternal Dialogue Rationality Notitional Control Notitional Control	1. Religious Well-Being (10) 2. Existential Well-Being (10)
Response Format	Yes/Mo	Five-point response scale (A-Lcast Optimal to E-Most Optimal	Four-point Likert scale (1 -Strongly Disagree to 4-Strongly Agree)	True/False	Seven-point response scale (Anchors not provided)	Six-point response scale (SA-Strongly Agree, MA-Moderately Agre A-Agree, D-Disagree, MD-Moderately Disagree, SD-Strongly Disagree)
Time to Administer (Note: These times are approximate)	45 minutes	30 minutes	10 minutes	60 minutes	15 minutes	10 minutes

Extensive norms available- Bufford, Paloutzian & Ellison (1991)	Test-retest= .7399 Internal Consistency (alpha)=,7894	Content, Criterion, Convergent, Factorial validity questionnable	Half of the items are negatively worded	Paloutzian & Ellison (1982); Ellison & Smith (1991)	see Ellison & Smith (1991); Ellis & Smith (1991)
No formal norms- see Pekala et al (1986) for descriptive statistics on a variety of different samples	Internal Consistency (alpha)= .6590 for scales	Criterion	None	Ronald J. Pekala, Ph.D Psychology Service (1168), Coatesville Veterans Administration Medical Center, Coatesville, PA 19320	Pekala & Kumar (1984, 1986)
No formal norms- see Cloninger et al (1993) for descriptive statistics	Internal Consistency (alpha) ', 65.89 for scales; .47-86 for subscale	Criterion, Convergent, Discriminant, Factorial	None	C. Robert Cloninger, Dept, of Psychiatry, Washington University School of Medicine, 4940 Children's Pl, St. Louis, MO, 63110	Svrakic, Whitehead, Przybeck & Cloninger (1993)
No formal norms; Hood & Morris (1983) do not provide descriptive statistics	Internal consistency (alpha)= .5375 for subscales	Convergent, Factorial validity questionnable	Some items are negatively worded	Vandecreek & Nye (1993)	Vandecreek & Nye (1993)
No formal norms- see Stoudenmire et al (1985) for descriptive statistics for each dimension across sex and age	Internal Consistency (Spearman-Brown)= .7291 for subscales	Criterion, Convergent, Discriminant	None	John Stoudenmire, Singing River Mental Health Services, 4507 McArthur St. Pascagoula, MI 39567	Stoudenmire, Batman, Pavlov & Temple (1986); Stoudenmire, Stevens & Cumbest (1989); Stoudenmire, Temple, Pavlov & Batman (1988)
See Persinger & Makarec (1993) for information on norms	Test-retest= .70- 90 for TTLS; Internal consistency <alpha) .70<="" td="" –=""><td>Criterion, Convergent, Discriminant, Factorial</td><td>Control and Lie scales included to detect unusual responding</td><td>CPELS and Control Cluster can be found in Persinger & Makarec (1987). For total PPI- Michael A. Persinger, Behavioural Neuroscience Laboratory, Department of Psychology, Laurentian University, Sudbury, Ontario, Canada P3E 2C6</td><td>Huot, Makarec & Persinger (1989); Makarec & Persinger (1985, 1990); Persinger (1988, 1991a, 1991b); Persinger & Valliant (1985); Richards & Persinger (1991); Ross & Persinger (1997).</td></alpha)>	Criterion, Convergent, Discriminant, Factorial	Control and Lie scales included to detect unusual responding	CPELS and Control Cluster can be found in Persinger & Makarec (1987). For total PPI- Michael A. Persinger, Behavioural Neuroscience Laboratory, Department of Psychology, Laurentian University, Sudbury, Ontario, Canada P3E 2C6	Huot, Makarec & Persinger (1989); Makarec & Persinger (1985, 1990); Persinger (1988, 1991a, 1991b); Persinger & Valliant (1985); Richards & Persinger (1991); Ross & Persinger (1997).
Norms (Note: When numbers are reported, they represent the Mean and Standard Deviation, respectively)	Reliability	Validity (Note: The types of validity which have received support are stated)	Controls for Response Bias	Availability	Other References

189 adults aged 40-60 years, resulted in the deletion of four more items. The final version of the SAS consists of 28 items which make up the four subscales; 1) UI (9 items), 2) PML (4 items), 3) IN (9 items), and 4) TR (6 items). This version of the SAS still relies upon the six-point Likert scale. Subscale scores are obtained by summing responses to items belonging to each subscale. The total SAS score is obtained by summing the four subscale scores.

The psychometric properties of the 28 items of the SAS were examined by Howden (1992). Interitem consistency is shown to be satisfactory with coefficient alpha values ranging from .72 to .91 for the four subscales; the total SAS obtained an alpha of .92. Subscale-to-total SAS correlations were calculated and resulted in correlations ranging from .78 to .88. Subscale inter-correlations were found to range from .50 to .73. Factorial validity has been provided for the SAS by a principal components analysis which resulted in the extraction of six factors (using a varimax rotation) accounting for 64.8 percent of the total score variance. The PML and TR subscale items formed distinct factors. The UI subscale items made up two of the factors which were interpreted as reflecting connectedness to others and connectedness to life, community and the world. Similarly, the IN subscale items loaded heavily on two factors which were identified as "innemess expressed as harmony, balance, peace and relationship with Supreme Being, and . . . innemess utilized for guidance and strength, particularly in times of difficulty or struggle" (Howden, 1992, p. 124). Finally, the external validity of the SAS was examined by Howden (1992) who found that a) there is no significant relationship between the total SAS score and a recent experience of a crisis event; b) there is a weak but significant relationship between total SAS scores and reported religiousness (r= .24, p<.001); and c) there is no relationship between frequency of attendance of religious events and total SAS scores.

The SAS is a measure of spirituality which does not reiy upon any religious theory or terminology. Consequently, because of its nondenominational construction, this instrument shows great promise as a research tool for investigations into spirituality and its physical, psychological, and interpersonal/ social correlates. The fact that the SAS is a fairly short measure also contributes to its appeal for research purposes since it would place minimal time demands on researchers and their subjects. Nevertheless, further examination of the construct validity of the SAS as well as investigations into its relationship to other measures of similar and dissimilar constructs is needed.

Spiritual Orientation Inventory (SOI; Elkins, Hedstrom, Hughes, Leaf (a Saunders, 1988)

The SOI is "a measure of spirituality based on a humanistic model and designed to assess the spirituality of those not affiliated with traditional religion" (p. 5). The measure is the product of a content analysis of the works of numerous writers on religion and spirituality including James (1958), Jung (1964), Maslow (1970), Dewey (1934), Eliade (1959) and Frankl (1963), among others. Based on their review of the literature, Elkins et al. (1988) extracted a definition of spirituality and the spiritual person which consists of nine components. Briefly defined, these components are:

- 1) Transcendent Dimension: "the spiritual person has an experientially based belief that there is a transcendent dimension to life" (p. 10);
- 2) Meaning and Purpose in Life: "the spiritual person has known the quest for meaning and purpose and has emerged from this quest with confidence that life is deeply meaningful and that one's own existence has purpose" (p. 11);
- 3) Mission in Life: "the spiritual person has a sense of 'vocation'" (p. 11);
- 4) Sacredness of Life: "the spiritual person believes life is infused with sacredness and often experiences a sense of awe, reverence and wonder even in "nonreligious" settings" (p. 11);
- 5) Material Values: "the spiritual person can appreciate material goods ... but does not seek ultimate satisfaction from them nor attempt to use them as a substitute for frustrated spiritual needs" (p. 11);
- 6) Altruism: "the spiritual person believes we are our "brother's keeper" and is touched by the pain and suffering of others" (p. 11);
- 7) Idealism: "the spiritual person is a visionary committed to the betterment of the world" (p. 11);
- 8) Awareness of the Tragic: "the spiritual person is solemnly conscious of the tragic realities of human existence" (p. 11); and
- 9) Fruits of Spirituality: "the spiritual person is one whose spirituality has borne fruit in his or her life. True spirituality has a discemable effect upon one's relationship to self, others, nature, life and whatever one considers to be the ultimate" (p. 12).

Elkins et al. (1988) informally validated these nine components by having five persons they considered to be highly spiritual (from Buddhist, Catholic, Protestant and Jewish traditions) evaluate them. At their interviews, all of the evaluators supported the Elkins et al. (1988) definition of spirituality.

Based on their literature review, the interviews and their examination of existing measures of spirituality (e.g., Allport & Ross, 1967; Hood, 1970; Yinger, 1969), Elkins et al. (1988) initially constructed 200 items which, after being rated by experts, was reduced to 157 items. This served as the first research version of the SOI. After eliminating those that were found not to discriminate between people rated as highly spiritual and a group of graduate students (Elkins, 1988; see below), only 85 items were retained to operationalize each of the nine components of their definition of spirituality for the final version of the SOI. Respondents are provided with a seven-point Likert scale ranging from I-strongly disagree to 7-strongly agree to rate the extent to which they agree with each of the items. The SOI is scored by reversing response values for negatively phrased items and summing item responses for each subscale.

The SOI has been shown to be a reliable measure with the scales of the 85-item version producing coefficient alphas ranging from .75 to .95 (Elkins, 1988; Elkins et al., 1988). Also, support for the criterion validity of the SOI has been provided; Lauri and Elkins (1988) found that the mean scores of 24 adults judged as being "highly spiritual" were higher than those of 96 graduate students on all SOI subscales except Idealism. Moreover, two additional studies which used the SOI demonstrated that the measure can be used to predict differences in spirituality in various subject populations; Smith (1991) found that 172 polio survivors obtained notably greater scores than 80 non-polio subjects on all SOI subscales except Idealism. Similarly, Lee and

Bainum (1991) found that hospice workers scored significantly higher on the SOI than a sample of hospital nurses. Finally, as a point of interest, Zainuddin (1993) examined the relationship between the SOI and psychogenic needs and found that autonomy and aggression needs were the best negative predictors of spirituality. Zainuddin also found that self-actualization needs could also predict level of spirituality.

Even though the reliability of the SOI has been shown to be satisfactory, much more knowledge regarding its validity is needed before confidence can be warranted in its use in research. This is especially true with regards to construct validity (including factorial validity) and the relationship of the SOI subscales to other measures of similar constructs. Elkins et al. (1988) state that future psychometric research focusing on reliability and factorial, content and concurrent validity is to be completed. However, to our knowledge, no such work has appeared in the literature. Despite this, as was the case with the SAS, the SOI is a measure of spirituality which was designed to eliminate the confound with religious concepts and terminology. In light of this, as well as its success in differentiating between known groups of subjects, the SOI may prove to be a good instrument for research comparing/contrasting groups of individuals who are hypothesized to differ in spiritual orientation.

Index of Core Spiritual Experience (INSPIRIT; Kass, Friedman, Leserman, Zuttermeister & Benson, 1991)

According to Kass et al. (1991), the INSPIRIT was developed in response to three considerations: a) measures of spiritual experience (e.g., Hood, 1970, 1975; Ring, 1984) indicate that such phenomena are fairly prevalent (e.g., Davis & Smith, 1985; Ring, 1984); b) the occurrence of spiritual experience may be associated with psychological well-being (e.g., Hay & Morisy, 1978; Hood, 1977b; Ring, 1984); and c) based on their research and clinical experiences (e.g., Benson, 1975,1987; Bowen, Justyn, Kass, Miller, Rogers, Rogers & Wood, 1978), Kass et al. (1991) developed a notion of spiritual experience which did not seem to be accounted for by existing measures. Kass et al. (1991) add that existing measures of spiritual experience do not appear to define the construct adequately enough to account for and expose the intrinsic religious variables (i.e., spiritual experience) which are linked to health.

The INSPIRIT is a measure of "core spiritual experience," a construct which Kass et al. (1991) state is made up of two discernable elements, namely,

- $1) \quad a \quad distinct \ \, event \ \, and \ \, a \quad cognitive \quad appraisal \quad of \ \, that \ \, event \ \, which \ \, resulted \quad in \quad a \quad personal \\ conviction of God's existence (or some form of higher power as defined by the person); and$
- 2) the perception of a highly internalized relationship between God and the person (i.e., God dwells within and a corresponding feeling of closeness to God) (p. 204).

The INSPIRIT was created to overcome the limitations of existing measures of spiritual experience in uncovering a link between spiritual experience and health.

The INSPIRIT is a paper and pencil measure that consists of seven items which are used to operationalize the two characteristics of the core spiritual experience. Items

one through six ask respondents multiple choice questions regarding the occurrence and nature of spiritual experiences and the impact of these experiences on beliefs and religious motivation. For item seven, respondents are provided a four-point rating scale to rate twelve statements describing various types or aspects of spiritual experience. Kass et al. (1991) assert that items 1, 2, 4 and 6 identify behaviors and attitudes which would be present in a person who felt close to God and who held the perception that God dwells within. Items 3, 5 and 7 are understood as identifying experiences which had led to a conviction of God's existence. Items one through seven of the INSPIRIT are scored by numerically coding item responses from 1 to 4, summing them and then dividing by the total number of questions. For item 7, only the highest scoring statement of the twelve statements is used for calculating the total INSPIRIT score. The greater the INSPIRIT mean score, the more likely it is that the respondent has had, and been affected by, a core spiritual experience.

Kass et al. (1991) performed several analyses on the INSPIRIT to examine its psychometric properties and found that the measure seems to have good reliability as suggested by an alpha coefficient of .90, and satisfactory validity as suggested by the following: a) a principal components analysis resulted in the extraction of one factor on which all seven INSPIRIT items loaded heavily; b) the INSPIRIT correlated significantly with the Intrinsic scale (r= .69, p<0001), but not the Extrinsic scale, of the Religious Orientation Inventory (Allport & Ross, 1967); c) multiple regression analyses revealed that the INSPIRIT is positively and significantly related to increased life purpose and satisfaction as measured by the Inventory of Positive Psychological Attitudes to Life (Kass, Friedman, Leserman, Caudill, Zuttermeister & Benson, 1991), and inversely related to average symptom frequency as assessed by the Medical Symptom Checklist (Leserman, 1983); and d) the INSPIRIT discriminated between outpatients with longer versus shorter histories of using meditation to elicit a relaxation response.

There are three strengths of the INSPIRIT which support its use in transpersonal research. First, the notion of core spiritual experience which the measure has been designed to assess was developed based on both the clinical and research experience of the test constructors. Most other measures of spiritual experience operationalize definitions of the construct which are grounded almost exclusively on theory and not on direct observation. Second, the INSPIRIT is a parsimonious measure of spiritual experience. Since it consists of only seven items, the measure can be administered quickly and easily. Third, as the above research indicates, the INSPIRIT demonstrates a significant empirical relationship between spiritual experience and both psychological and physical health. Consequently, the INSPIRIT may serve as an excellent measure for use in research focusing on transpersonal experience and its impact on functioning.

Despite these strengths, the INSPIRIT can be criticized on at least two accounts. First, though it attempts to use them in non-denominational ways, it nonetheless relies heavily on monotheistic terms, especially "God." Resultingly, as was discussed earlier in this paper, the INSPIRIT may be more sensitive to individuals who adhere to monotheistic religious systems than to those who practice nontheistic or polytheistic faiths. Second, the current scoring procedure for the INSPIRIT results in the loss of a fair amount of data from item seven. Some effort should be made to develop a

more effective procedure for using responses to item seven (e.g., instead of using only the highest scoring rating for calculation of the total INSPIRIT score, the mean rating of the twelve parts of item seven could be used).

Mystical Experiences Scale (M-Scale: Hood, 1975)

Hood (1975) states that the M-Scale was created in order to provide an empirical means of investigating phenomena, namely religious and spiritual experience, which up to that time had very little empirical work done on them. The M-Scale can be understood most simply to be an operationalization of the eight dimensions of mystical experience delineated by Stace (1960). These dimensions are labelled and defined by Hood (1975) as follows:

- 1) Ego Quality: "... the experience of a loss of sense of self while consciousness is nevertheless maintained. The loss of self is commonly experienced as an absorption into something greater than the mere empirical ego" (Hood, 1975, p. 31);
- 2) Unifying Quality: "... the experience of the multiplicity of objects of perception as nevertheless united. Everything is in fact perceived as one" (p. 31);
- 3) Inner Subjective Quality: "... the perception of an inner subjectivity to all things, even those usually experienced in purely material forms" (p. 32);
- 4) Temporal/Spatial Quality: "refers to the temporal and spatial parameters of the experience. Essentially both time and space are modified with the extreme being one of an experience that is both 'timeless' and 'spaceless'" (p. 32);
- 5) Noetic Quality: "refers to the experience as a source of valid knowledge. Emphasis is on a nonrational, intuitive, insightful experience that is nevertheless recognized as not merely subjective" (p. 32);
- 6) Ineffability: "refers to the impossibility of expressing the experience in conventional language. The experience simply cannot be put into words due to the nature of the experience itself and not to the linguistic capacity of the sugject [sic]" (p. 32);
- 7) Positive Affect: "refers to the positive affective quality of the experience. Typically the experience is of joy or blissful happiness" (p. 32); and
- 8) Religious Quality: "refers to the intrinsic sacredness of the experience. This includes feelings of mystery, awe, and reverence that may nevertheless be expressed independently of traditional religious language" (p. 32).

Hood (1975) indicates that Stace's (1960) criterion of paradoxicality was not used in the M-Scale because Hood did not consider it an essential aspect of mystical experience and because it did not "effectively discriminate" (p. 31) in his preliminary work.

The M-Scale is a paper and pencil test which consists of 32 items. Though Hood (1975) began with an item pool of 108 items which operationalized Stace's (1960) categories, he chose to retain only those items which "proved to be the most clearly understood while retaining face validity in terms of Stace's conceptualizations" (p. 30). Moreover, Hood (1975) asserts that the 32 items of the final M-Scale demonstrated the most satisfactory empirical validity as reflected in "discrimination indexes calculated on the basis of the ratio between mean response per item by the top quartile and the lower quartile of respondents to initial forms of" the M-Scale (p. 30-31).

Each of the dimensions of Stace (1960) are represented by four items (two positively expressed and two negatively expressed). Based on a factor analysis Hood (1975) also delineates two subscales; a general mysticism factor which includes twenty items (which completely embody the dimensions Unifying Quality, Temporal/Spatial Quality, Inner Subjective Quality and Ineffability; it also includes three items from Ego Quality and one item from Positive Quality) and a religious interpretation factor made up of the remaining twelve items. Respondents are provided with a fivepoint Likert scale, ranging from -2; "this description is definitely not true of my own experience or experiences" to +2; "this description is definitely true of my experience or experiences", to rate the extent to which the item accurately describes the person's experience. Respondents are also provided with a "I cannot decide" option, which is recorded as a "?" on the questionnaire. However, the M-Scale instructions encourage respondents to provide answers to all of the items. Item responses are numerically coded as -2, -1 +1 and +2, respectively and are recorded by the respondent on the questionnaire as such. The scoring of the M-Scale consists of reversing the sign of the item response for negatively phrased items, adding three to all item score responses (a response of ? is assigned a value of three) and then summing them to obtain the dimension scores and the total M-Scale score. Total scores can range from 32, meaning the least mystical, to 160 which is the most mystical. Scores of the two M-Scale factors can also be obtained by summing the converted item responses as per the procedure above for the items belonging to each factor.

Evidence of adequate, but not exceptional, reliability of the M-Scale has been provided by Hood (1975) who intercorrelated the individual items, the eight dimensions, and the two factors, respectively, to the total M-Scale score. Correlations for the items ranged from .29 to .55. Correlations for the eight dimensions ranged from .39 to .64. Correlations for the factors are .86 for the general mysticism factor and .66 for the religious interpretation factor. Hood interpreted these correlations as indicating that the M-Scale has satisfactory internal consistency. In addition, Hood intercorrelated the positive (i.e., summed the positively expressed items) and negative (i.e., summed the negatively expressed items) expressions of all eight conceptual categories and found numerous significant relations. He interpreted this latter finding as indicating "that the form of expression does not alter the meaningfulness of the measurement of these categories and hence the mixed nature of this scale is of significance in avoiding problems of response set when correlating this scale with other measures" (Hood, 1975, p. 33).

The validity of the M-Scale has been relatively well examined and satisfactory support for the measure has been provided. Hood (1975) performed a principal components factor analysis (using a varimax rotation) and found two intercorrelated factors (r= .47, p<.01), which support the construct validity of the M-Scale as a measure of Stace's concepts. Additional evidence in support for this factor structure is provided by Caird (1988) who replicated Hood's (1975) factor structure when employing a two-factor solution in a principal axis factor analysis. Interestingly, when a three-factor solution was utilized, Caird found that the religious interpretation category split into two factors indicative of two types of interpretation, noetic and religious. For both solutions, Caird found that the factors were highly intercorrelated. Alternatively, Campbell (1983) performed a principal components analysis on M-Scale item scores which resulted in the extraction of eight factors. She goes on to state

that "although these results are not necessarily incompatible with those of Hood, the present results at least appear to suggest that the Mysticism scale is a good deal more complex than Hood's previous work implies" (Campbell, p. 77).

The M-Scale has also demonstrated adequate convergent validity as reflected in the pattern of correlations between the two M-Scale factor scores, the total M-Scale score and other measures of theoretically related constructs found in research. For example, Hood (1975) found significant correlations between the M-Scale total and Hoge's (1972) Intrinsic Religious Motivation scale (r= .81, .68 and .58, p<.01 for M-Scale total, factor one, and factor two, respectively), Hood's (1970) Religious Experience Episodes Measure (r= .47 and p<.01 for M-Scale total and factor two; r= .34, p<.05, for factor one), and Taft's (1970) Ego Permissiveness Scale (r= -.75, -.75 and -.43, p<.01 for total, factor one and factor two).

The M-Scale has been used fairly extensively in research. Though most of this work was not done with the intent to examine the psychometric properties of the measure, it nonetheless provides further insight into the validity of the instrument. In light of this, the authors of this paper surmised that a brief overview of the findings of the literature we obtained would be in order. These findings consist of the following:

1) Relationship of the M-Scale to other measures: a) Hood (1975) correlated the M-Scale and its two factors to the MMPI clinical and validity scales and found significant correlations between the M-Scale total, factor one and factor two scores and the MMPI Lie (L), Hypochondriasis (Hs) and Hysteria (Hy) scales. He interpreted the relations between the M-Scale and the latter two MMPI scales as being consistent with the "concern with bodily processes and intense experiential states" (p. 39) typically associated with mystical consciousness; b) Fite (1981) also correlated M-Scale scores to the MMPI but obtained a very different pattern of correlations. Non-significant correlations were found with the MMPI L, Hs and Hy scales; however, he observed numerous significant correlations between the M-Scale total and factor scores and MMPI Correction (K), Depression (D), Psychopathic Deviate (Pd), Paranoia (Pa), Schizophrenia (Sc), Hypomania (Ma), Social Introversion (Si) and several specialized MMPI scales including the Subtle-Obvious Clinical scales, Phobias (Pho), Ego Control (EC), Acting-out Ratio (AOR) and Internalization Ratio (IR). Moreover, Fite (1981) correlated the M-Scale to the Millon Multiaxial Clinical Inventory (MCMI; Millon, 1977) and found significant negative correlations between the M-Scale total and factor scores and the MCMI Asocial scale. Conversely, significant positive relations were found between the M-Scale and MCMI Gregariousness. The M-Scale religious interpretation factor also correlated significantly with the MCMI Avoidant and Narcissistic scales. Fite concluded that his evidence was inconclusive in providing support for the hypothesis "that persons reporting more mystical experience will also demonstrate greater capacity for 'regression in service of the ego' than persons reporting less mystical experience" (p. 123); c) Hood, Hall, Watson and Biderman (1979) found many meaningful relations between the M-Scale and the fifteen personality dimensions of the Jackson Personality Inventory (JPI; Jackson, 1976). They also observed a number of sex differences in the pattern of significant correlations obtained. Nevertheless, based on their findings and ignoring the obtained sex differences, Hood et al. (1979) assert that the person reporting mystical experience as indicated on M-Scale factor one,

may be described as one with a breadth of interests, creative and innovative, tolerant of others, social adept, and unwilling to accept simple solutions to problems. This person is likely to be critical of tradition. However, a person reporting a religiously interpreted mystical experience [as indicated on factor two] is likely to be traditionally oriented and concerned with the welfare of others (p. 806).

As Hood et al. (1979) indicated, these findings reveal stable and healthy personality correlates to reported mystical experience; d) Campbell (1983) found significant correlations between the M-Scale and the Thinking-Feeling scale of the Myers-Briggs Type Indicator (MBTI). The M-Scale general mysticism factor also correlated with MBTI Sensation-Intuition whereas the religious interpretation factor produced a significant negative relation with MBTI Extraversion-Introversion. In addition, using stepwise multiple regression, Campbell found that the MBTI scales of Feeling, Intuition and Sensation best predicted M-Scale factor one scores whereas factor two scores were best accounted for by MBTI Feeling, Judging and Perception as well as age. The total M-Scale score was best predicted by MBTI Feeling, Intuition and Judging and subject age. Finally, using discriminant function analysis, Campbell observed that both the M-Scale and the MBTI could discriminate between group of people reporting mystical experience from a group who did not; e) Noble (1984) obtained significant relationships between the M-Scale total and factor scores and the Peak Experiences Scale (PES; Mathes, Zevon, Roter & Joerger, 1982; r= .66, .63, .58, pc.001 for M-Scale total, factor one and factor two, respectively) and with numerous scales of the Perceived Self Ouestionnaire (Heath, 1968), a measure of psychological health and maturity; these findings were consistent with Noble's expectations; f) Hood (1977a) found significant relations between the M-Scale and Self-actualization as measured by the Personal Orientation Inventory (Shostrom, 1964), especially the general mysticism factor. Hood observed that individuals high in self-actualization appeared more likely to have mystical experiences caused through the use of drugs or sexual activity whereas mystical experiences seemed to be precipitated by religious or nature settings in persons low in self-actualization; g) Hood (1978) reported a notable correlation between the M-Scale and the Adjective Check List suggesting there is a relationship between reports of mystical experience and a healthy orientation to self.

2) Experimental or Quasi-experimental Research: a) Hood, Morris and Watson (1990) used a modified M-Scale to assess the experience of 73 university students classified as either intrinsically religiously motivated, extrinsically motivated or indiscriminantly pro-religious who were subjected to an isolation tank experience under either religious or non-religious set conditions. They found that the three religious types did not differ on factor one as a function of set conditions. However, indiscriminantly pro-religious subjects had higher factor two scores under the religious set conditions, whereas factor two scores were unaffected by set conditions for intrinsics and extrinsics. Intrinsic subjects had higher factor two scores while extrinsic participants had lower factor two scores regardless of set conditions. Hood et al. (1990) also found that subjects classified as intrinsically motivated reported their isolation tank experiences in religious terms whether prompted to do so or not whereas indiscriminately pro-religious subjects were more likely to do so when prompted and extrinsics did not regardless of prompting; b) Propst (1979) found that increased antisocial behavior was exhibited by subjects who had external locus of

control and a low M-Scale score, c) Hood (1977b) observed that individuals engaged in a high stress nature experience obtained significantly greater M-Scale scores than persons involved in a low stress experience, suggesting that an anticipated stressful event may serve as a trigger for mystical experience. (The reader is referred to Lukoff and Lu [1988] for a more detailed discussion of Hood, 1977a, 1977b. They also present a study of marginal quality by Finney & Maloney [1985] which utilizes the M-Scale.)

The M-Scale can be viewed as a relatively well designed measure of mystical experience which appears to have found much success to date. However, there are some inconsistencies and apparent oversights in the empirical literature which bring the validity and reliability of the instrument into question. First, there is no knowledge about the stability of M-Scale scores. Even though the M-Scale has been in existence for about twenty years, we were unable to locate any studies which examine the test-retest reliability of the instrument. Given that there is a dynamic relationship between the reliability and validity of any standardized test, it would seem prudent to obtain more knowledge about the reliability of the M-Scale than is currently available. Second, even though there are indications that sex differences may affect M-Scale scores (e.g.. Hood, Hall, Watson & Biderman, 1979), there has not been any research that we could find which explicitly and systematically addresses this possible shortcoming.

Third, the factor analytic work on the M-Scale does not allow for complete confidence in the two-factor model that Hood (1975) constructed. Additional research confirming the robustness of the general mysticism and religious interpretation factors may be highly valuable in establishing the factorial complexity of the instrument. Lastly, there are indications that respondents, especially older persons, have difficulties differentially responding to the M-Scale items (Hood, 1975). Thus, there is some question as to the validity of M-Scale scores obtained from some populations on the basis of age. Nevertheless, we are in support of Hood (1975) who contends that the M-Scale "is a potentially useful instrument for persons interested in the investigation of mystical experiences, especially within a religious context" (p. 39).

Peak Scale (PES: Mathes, Zevon, Roter & Joerger, 1982)

The PES is a measure of the tendency of a person to have peak experiences as conceptualized by Maslow (1970). Test construction began with the development of 143 true-false items directly derived from Maslow's detailed description of peak experiences. Based on item to scale-total correlations calculated using data from two samples consisting of 230 subjects, Mathes et al. (1982) dropped 73 items, leaving a total of 70 items. Mathes et al. noted that the remaining items were all scored in a positive direction (i.e., in the direction of a true response). In order to prevent the confounding of scale scores due to acquiescence, the PES creators reworded half of the items in the negative. To ensure that the rewording of items did not affect internal consistency, Mathes et al. administered the revised items to 63 males and 104 females and correlated the item scores to the score total. They found that all but seven of the items did not obtain significance for men and five did not obtain significance for

women. However, based on the fact that interitem consistency was found to be satisfactory, these items were retained in the final version of the PES. The PES is scored simply by summing the item responses which endorse aspects of peak experiences.

In terms of its psychometric properties, the PES has demonstrated good reliability as found in Kuder-Richardson reliability coefficients of .94 for men and .92 for women (Mathes et al., 1982) and adequate validity as suggested by the following; significant correlations between PES scores and the number of peak experiences reported by subjects (r= .24, p<.05 for males; r= .24, p<.05 for females); numerous significant correlations between PES scores and subject ratings of three passages describing a mystical experience on such criteria as the interestingness of passages, meaningfulness of passages, feelings of being emotionally moved by the passages, enjoyment of reading, the ability of readers to "get into" the passages and arousal of "mystical feelings" in the subjects; and theoretically consistent correlations between the PES and measures of related constructs including the Absorption scale (Tellegen & Atkinson, 1974; r= .50, p<.005, for men; r= .54, p<.005, for women), a measure of Being-value achievement devised by Mathes et al. (1982) (r= .37, p<-005, for men; r= .23, p<.05, for women), and numerous scales of the Personal Orientation Inventory (Shostrom, 1964), a measure of self-actualization (for males: Self-regard: r= .24, p<.05; Nature of Man, Constructive: r= .29, p<025; for females: Inner-directedness: r= .28, p<.025; Self-actualizing value: r= .31, p<025; Self-acceptance: r= .27, p<.025) (Mathes et al., 1982). Additional evidence in support of the validity of the PES has been provided by Noble (1984) who found that the measure significantly correlated to Hood's (1975) Mystical Experiences Scale (total score- r= .66, p<.001; factor one- r= .63, p<.001; factor two- r= .58, p<.001) and with numerous scales of the Perceived Self Questionnaire (PSQ; Heath, 1968), a measure of psychological health and maturity (PSQ total- r= .18, p<.01; Intellectual Skills- r= .19, p<.01; Values- r= .14, p<.05; Symbolization- r= .22, p<.01; Allocentrism- r= .13, p<.05; Integration- r= .17, p<,01). Lastly, Momeau, MacDonald, Holland and Holland (in press) found significant relations between the PES and a measure of complex partial epileptic signs (Persinger & Makarec, 1987, 1993; see below; r= .35, p<.001) and several scales of the revised Paranormal Beliefs Scale (PBS-R; Tobacyk 1991; sec below) including the total PBS-R score (r= .36, p<.001) and subscales assessing Traditional Religious Beliefs (r= .30, p<.01), Psi Beliefs (r= .27, p<.01), Spiritualism (r= .32, p<.001), Precognition (r= .30, p<.01) and Extraordinary Life Forms (r= .20, p<05).

Based on their analyses of the PES, Mathes et al. (1982) concluded the following:

Although individuals who report having peak experiences are also likely to have experiences involving intense happiness, they are even more prone to report having cognitive experiences of a transcendent and mystical nature. This suggests that although the peak experience involves positive affect, it is primarily a cognitive (mystical) event. Individuals who report having peak experiences are more likely to report living in terms of Beingvalues, such as truth, beauty, and justice than individuals who do not report having peak experiences. Finally, self-actualizing individuals are more likely to report having peak experiences than less self-actualizing individuals, though the relationship is not a very strong one. In general, this picture is consistent with the theorizing of Maslow (p. 107).

The greatest strength of the PES lies in its grounding in Maslow's theory. In fact, given that many items of the PES are borrowed directly from Maslow's (1970) own writing, and the findings reported above, it is very likely that the PES is a measure which is an acceptable operationalization of what Maslow originally meant by peak experiences. Thus, the PES appears to hold promise as a measure for research examining peak experiences and their relation to psychological health. However, no investigations have been undertaken which examine the factorial validity of the PES. Until such an analysis is completed, investigators using this scale must be sensitive to the possibility that the scale may be a multidimensional (i.e., multi-factorial) operationalization of the construct and thus not a homogeneous measure of peak experiences.

Intrinsic Religious Motivation Scale (IRMS; Hoge, 1972)

Hoge (1972) states that the development of the IRMS was prompted by the existence of conceptual diffuseness in existing notions of intrinsic and extrinsic religion and by the questionable validity of measures of the same. The IRMS operationalizes and assesses the aspect of intrinsic religious motivation identified and defined by Hunt and King (1971) as ultimate versus instrumental religious motivation. In order to remain consistent with Allport and Ross (1967), Hoge defined this aspect of religious motivation as a bidirectional dimension with intrinsic motivation at one end and extrinsic motivation at the other. Hoge contends that the IRMS is not a measure of behavior, perception or cognitive style but of religious motivation from an American Christian perspective. He adds that test items asking about specific religious behavior were excluded from the IRMS for two reasons: a) such behavior does not serve as a reliable indicator of intrinsic religious motivation, and b) it was desirable to keep religious behavior separate conceptually and operationally from the notion of intrinsic religious motivation.

The IRMS is a paper and pencil test made up of ten items which consist of statements about the people's orientation to religion in their lives. Respondents are provided a four-point Likert scale ranging from strongly agree (numerically coded as one for scoring), and agree, (coded as two), to disagree (coded as four) and strongly disagree (coded as five) to rate the extent to which they agree with the test items. Item responses are summed and the mean calculated to obtain the IRMS score. The lower the IRMS score, the higher the respondent's intrinsic religious motivation.

The IRMS has demonstrated good reliability as indicated by a Kuder-Richardson reliability coefficient (using formula 20) of .90 (Hoge, 1972). In terms of validity, the IRMS appears to have adequate factorial validity (Hoge, 1972) as well as good convergent and discriminant validity; the IRMS has produced strong correlations with other measures of intrinsic religious orientation including Feagin's (1964) (r= .85 for total scale; r= .87 for intrinsic scale) and Allport and Ross' (1967) (r= .87 for total scale; r= .86 for intrinsic scale; Hoge, 1972) and with the Mystical Experiences Scale (Hood, 1975; r= .81, p<.01). Moreover, evidence of satisfactory criterion validity has been found by Hoge (1972) who obtained a correlation of .585 between IRMS scores and minister's ratings of 51 subjects as either intrinsically or extrinsically motivated. Finally, Powell and Thorson (1991) observed a strong relationship

between the IRMS, scores on a death anxiety scale and constructions of death among 145 people.

Given the findings reported above, it appears that the IRMS could serve as a satisfactory brief measure of intrinsic religious motivation. In fact, given the magnitude of the correlations between the IRMS and the scales of Allport and Ross (1967) and Feagin (1964), it appears that the IRMS is assessing constructs virtually identical to these other measures. However, as is the case with most measures of this concept, the IRMS is limited by its operationalization of intrinsic religious motivation from an exclusively American Christian perspective. Nonetheless, the strong correlation between the IRMS and a measure of mystical experience which was obtained by Hood (1975) suggests that the IRMS could be used as a Christian-oriented measure of the extent to which peoples' religious orientation is grounded in the occurrence of spiritual experiences.

Self Expansiveness Level Form (SELF; Friedman, 1983)

The development of the SELF was prompted by Friedman's (1983) perception that transpersonal psychology was lacking adequate measures of relevant concepts which would allow for the development of a cumulative body of empirical knowledge based upon a shared technique. The general concept that the SELF is designed to assess is self-expansiveness, a construct defined by Friedman (1983, p. 38) as "the amount of True Self which is contained within the boundary demarcating self from not-self through the process of self-conception." More specifically, self-expansiveness has been operationalized as three distinct levels based upon a spatial-temporal cartography of self-concept (Sampson, 1978; Shostrom, 1968). The three levels are the personal, middle and transpersonal. Each level of self-concept corresponds to a subscale on the SELF. The Personal Subscale, made up of five items, was included to assess the degree of identification that a person has with the "here-and-now" level of the self. Friedman (1983) states that the personal subscale can best be understood as measuring Western conceptions of positive mental health. The Transpersonal Subscale, also consisting of five items, was designed to assess a person's "degree of identification with aspects of reality beyond that which is ordinarily conceived as being part of the individual" (Friedman, 1983, p. 40). Further stated, the transpersonal subscale assesses the degree of "extension of the self-concept beyond the here-andnow such that there [has been or] is a dissolution of the individual's perception of self as an isolated biosystem existing only in the present time" (p. 39). The Middle Subscale, made up of eight items, is said to serve as a bridge between the personal and transpersonal levels of self-expansiveness. Friedman (1983) states that research into the meaning of the middle subscale has been minimal and no knowledge of what it measures has been obtained. The middle subscale was included to increase the overall face validity of the SELF.

The SELF is a paper and pencil test that consists of 18 randomly ordered self descriptive statements which are rated by an examinee on a five-point Likert scale, ranging from A: "very willing to use to describe my sense of self or identity" to E: "very unwilling to use to describe my sense of self or identity," for the degree of willingness of the examinee to identify with the test items. SELF scale scores are

obtained by numerically coding and summing the item responses (A=5, B=4, C=3, D=2, E=1). The higher the score on a given subscale, the more True Self is incorporated into a person's self concept.

The SELF has demonstrated satisfactory reliability; Friedman (1983) found two-week test-retest correlations of .83 and .80 for the personal and transpersonal subscales respectively, while MacDonald, Tsagarakis and Holland (1994) found two week test-retest reliabilities of .57 for both the personal and middle subscales and .69 for the transpersonal scale, and three-month test-retest correlations of .36, .34 and .57 for the personal, middle and transpersonal subscales. In terms of inter-item consistency, Friedman (1983) found Spearman-Brown reliability coefficients of .81 and .78 for the personal subscale and .66 and .68 for the transpersonal subscale. MacDonald, Tsagarakis and Holland (1994) found coefficient alpha values of .72 and .75 for the personal scale, .58 and .67 for the middle subscale, and .79 and .65 for the transpersonal subscale.

Examination of the validity of the SELF has been fairly comprehensive and satisfactory support has been provided. To briefly elaborate, the results of four principal components analyses have provided support for the factorial validity of the personal and transpersonal subscales (Friedman, 1983; MacDonald et al., 1994). Moreover, the SELF personal and transpersonal subscales have been shown to ifave adequate convergent and discriminant validity as demonstrated in correlational findings consistent with expectation between the SELF subscales and measures of theoretically related and non-related constructs (e.g., the personal subscale has been found to significantly correlate with the Time Competence Scale and the Inner Supports Scale of the Personal Orientation Inventory, the Total Positive Score of the Tennessee Self Concept Scale [TSCS; Fitts, 1965], the Self-Description Inventory, the Ego Grasping Orientation and numerous scales of the Myers-Briggs Type Indicator [MBTI] and the NEO Personality Inventory [NEO-PI] whereas the transpersonal subscale has been shown to significantly correlate to the M-Scale [r= .32, p<005] but not the MBTI and only weakly with the Openness to Experience domain of the NEO-PI; both subscales have not been found to correlate with intelligence, social desirability, a number of measures of response style from the TSCS and each other; Friedman, 1983; MacDonald et al., 1994). Also, evidence for the criterion validity of personal and transpersonal subscales was obtained by Friedman (1983) who was able to use these subscales to differentiate between groups of individuals known to vary in the extent to which they identified with the transpersonal and "here-and-now" levels of self (e.g., students, yoga practitioners, members of the Association for Transpersonal Psychology).

Outside of the Temperament and Character Inventory, the SELF is the only measure available which is designed to assess aspects of transpersonal identity. In light of its uniqueness as well as the favorable findings supporting the validity and reliability of the personal and transpersonal subscales, it appears as though the SELF holds much potential for use in research exploring the relation of conventional and transpersonal aspects of identity to spiritual practice/experience. Moreover, as was suggested by MacDonald et al. (1994), the lack of notable relations between the transpersonal subscale and the MBTI and NEO-PI suggest that this subscale may be useful in investigating the possible existence of a "sixth" factor of personality/identity (in

addition to the commonly accepted five factors in conventional personality psychology) which could incorporate the spiritual into mainstream conceptions of personality.

However, despite its potential usefulness, the SELF is currently limited in at least three ways. First, Friedman (1983) did not focus any of his attention on the theoretical and empirical development of the middle subscale. As a result, outside of Friedman's claim that the subscale is a bridge between the personal and transpersonal levels of self-expansiveness, little is known about what the subscale is assessing. Fortunately, some work has been done to further explore this aspect of the SELF. In their detailed examination of the instrument, MacDonald et al. (1994) state that "the middle level can be understood as encompassing aspects of self-concept which have some aspects of spatial-temporal expansiveness but are not expanded to the point which results in the dissolution of separate egoic identity" (p. 179). This can include identification with behaviors, memories, body parts or movements and social behavior/relations. MacDonald et al. also examined the psychometric properties of the middle subscale and found that it has adequate reliability (coefficients reported above) and some degree of validity as suggested by significant correlations between the middle subscale and both the personal and transpersonal subscales (r= .34 and .41, p<.01, respectively), and by the replicated finding of a multidimensional factor structure. In addition, MacDonald et al. (1994) obtained a number of significant correlations between the middle subscale and the scales on the MBTI and NEO-PI suggesting that it may be assessing a construct which is relatively well represented in existing personality tests.

Second, there are no specific interpretive criteria available to indicate the meaning of the magnitude of a given subscale score or to indicate the meaning of subscale scores in comparison with each other (e.g., what does a high personal subscale score and a moderate transpersonal subscale score tell us about the test taker?). Even though SELF scores could be simply understood as reflecting greater self-expansiveness with increased magnitude in the subscale scores, a more definitive interpretive system might be developed in order to make the measure more useful, both for individual assessment and group use in research.

Third, there are indications that SELF scores, especially the personal and middle subscales, may be affected by gender (MacDonald et al., 1994). This finding needs to be kept in mind when using the SELF in research with both men and women and in developing an interpretive system (e.g., separate systems may be required for males and females).

Transpersonal Orientation to Learning (TOIL; Shapiro & Fitzgerald, 1989)

The TOTL is a measure of the extent to which a person's attitudes about learning are transpersonal in nature. Shapiro and Fitzgerald (1989) state that "according to the Transpersonal Orientation, schools and other settings for learning are environments for the development of spiritual potential.... Intuitive and receptive modes of consciousness are considered equal in importance to cognitive, rational, logical and active modes" (p. 374-376). They add that the TOTL was constructed because there

was no prior empirical work in existence which applied the transpersonal perspective to education.

Development of the TOTL began with the construction of 222 test items based on the content analysis of the writings of twenty-five well-known transpersonal/ humanistic psychologists. This item pool was subjected to independent screenings by a number of judges who rated each item for clarity and relevance. Based on inter-judge agreement and on pilot study data, the item pool was reduced to 67 items. Using a five-point Likert scale ranging from 1-strongly disagree to 5-strongly agree, this 67item version of the TOTL was administered to 166 graduate students. Using the results of an item analysis of this data, 19 items were eliminated. Eight more items were dropped on the basis of the findings of a factor analysis. These procedures reduced the overall TOTL to 40 items. Based on a second factor analysis which used an equamax rotation (a procedure which divides the variance accounted for by each factor equally across the factors), the TOTL is broken down into four subscales each containing 10 items. The subscales are labelled 1) Fantasy Techniques Applied in Schools, 2) Mysticism Preferred to Science as an Epistemology, 3) Mystical/Occult/ Paranormal Techniques Applied to Schools, and 4) Transcendent Consciousness. TOTL total and subscale scores are obtained by simply summing the item responses. The greater the TOTL score, the greater the person's transpersonal orientation to learning.

Evidence in support of the reliability of the TOTL has bei'n provided. For the entire TOTL, Shapiro and Fitzgerald (1989) found a split-half reliability of .98 and a Cronbach's alpha of .96. For the subscales, alphas values were found to range from .82 to .93 with a mean alpha of .88.

In terms of validity, Shapiro and Fitzgerald (1989) assert that the content validity of the TOTL was established during test construction by basing item development directly on the work of transpersonal thinkers and by having judges rate the items. Criterion validity of TOTL has been supported by findings indicating that the TOTL could differentiate among known groups. In particular, it was found that mean TOTL scores were significantly higher for students in confluent (humanistic) education, followed by students in counseling psychology, who, in turn, scored higher than two groups made up of students from single and multiple subject credential programs (Shapiro & Fitzgerald, 1989). Moreover, the TOTL has demonstrated adequate convergent validity; Shapiro and Fitzgerald correlated the TOTL to a number of measures which assess similar constructs, and obtained significant correlations with the Orientation to Learning (OTL; Shapiro, 1985), a measure of humanistic orientation to learning (r= .46, p<-05), the Intuitive-Feeling temperament scale of the Kiersey Temperamental Sorter (Kiersey & Bates, 1978), a short form of the Myers-Briggs Type Indicator (r= .38, p<-05), and the Concrete Experience Scale of the Learning Style Inventory (Kolb, 1976; r= .22, p<.05). Lastly, evidence for factorial validity has been provided through two principal components analyses. The first analysis, which used a varimax rotation, resulted in all TOTL items loading on a single factor, whereas the second analysis, which used an equamax component rotation, uncovered the four factor structure which partitions the TOTL items into the four subscales mentioned above (Shapiro & Fitzgerald, 1989).

The TOTL is unique in that it is the only transpersonal measure which has direct relevance to educational research: "the contribution of an objective scale such as the TOTL lies in its availability as a reliable and valid measure of a transpersonal orientation to education" (Shapiro & Fitzgerald, 1989, p. 383). In terms of the application of the TOTL, Shapiro and Fitzgerald (1989) state that,

this scale could provide a useful way of assessing parent, teacher and student attitudes and changes in these attitudes influenced by certain educational regimes. In addition, the TOTL scales further open up a line of scientific investigation of the correlates of such attitudes and their effects on learning and development (p. 383).

However, any one who uses the TOTL at this time should be sensitive to the fact that all of the items are worded in such a manner that subjects strongly endorsing an item indicate their responses in the same positive direction. Thus, the researcher should be sensitive to the impact of response bias on test scores. In addition, the factor structure of the TOTL may be unstable. Shapiro and Fitzgerald caution against the use of subscale scores since they are likely to be unstable due to the use of the equamax factor rotation. Resultingly, researchers should exercise discretion when using the subscales until further research can ascertain whether the construct is unidimensional or multidimensional, since the results of the factor analyses indicate that both may be correct. At present the TOTL appears to be best used as a measure of a general orientation towards the transpersonal approach to education.

Ego Grasping Orientation (EGO; Knoblauch & Falconer, 1986)

The EGO is a measure of Taoist orientation that assesses ego grasping, a construct defined as "a dualistic stance that is marked by the person's attempts to make things more positive while striving to eliminate the negative aspects of human experience" (Knoblauch, 1985, p. 55). The notion of ego grasping was developed by Knoblauch and Falconer based on the psychotherapeutic adaptation of the Taoist concepts of yinyang, wu-wei and te. Test items were constructed by extracting statements made by clients in audio-taped therapy sessions which seemed to affirm or support the concept of ego grasping. Knoblauch (1985) states that an individual high in ego grasping would, according to the Taoist perspective, be highly motivated by egoic idealism and ego centeredness.

The EGO takes the form of a twenty-item true/false questionnaire which is scored in the direction of ego-grasping. The greater the EGO score, the greater the ego grasping by the individual.

Research has shown that the EGO has good inter-item consistency and test-retest reliability, obtaining coefficient alphas of .81 and .82 (Knoblauch & Falconer, 1986), a Kuder-Richardson reliability of .79 and a three-month test-retest correlation of .72 (MacDonald et al., 1994). Moreover, the EGO has demonstrated satisfactory validity (Knoblauch & Falconer, 1986; MacDonald et al., 1994) and, based on the pattern of correlations obtained by Knoblauch and Falconer (1986) between the EGO and ten measures of psychopathology, it appears that elevated EGO scores are associated with anxiety, poor self-esteem, depression and impaired socialization skills. EGO

scores have also been associated with high risk variables for problem drinking in adult children of alcoholics (Knoblauch, 1990); marginal functioning in alcoholic college students who were adult children of alcoholics (Knoblauch & Bowers, 1989); and psychological characteristics present in a sample of female alcoholics which differentiated them from their male counterparts (Knoblauch, 1988).

The authors of this article are in agreement with Knoblauch and Falconer (1986) who state that "the strength of the inventory lies in its ability to measure a person's place on [the continuum ranging from observational acceptance or *te* to fighting against the Tao, or ego grasping], which, in turn, indicates a strong relationship with Western personality dimensions" (p. 80). However, as the test developers have noted, the EGO "is not a measure of personality since, from a Taoist perspective, personality is an alien concept" (Knoblauch & Falconer, 1986; p. 80). Thus, researchers should make efforts to not equate ego-grasping with any personality or psychological variable. Moreover, one must be equally cautious when using the EGO to assess concepts such as degree of spiritual realization, since despite the fact that low scores suggest that a given individual may "be relatively free from anxiety, depression, low self-esteem, and low socialization skills, it does not suggest anything more than an orientation towards observational acceptance or *te*. It is not a measure of enlightenment" (Knoblauch & Falconer, 1986, p. 80).

In terms of general applications, the EGO could prove useful in psychotherapy and meditation outcome research. In addition, it could be a useful measure for contributing diagnostic information to clinicians and researchers which conventional tests do not provide. Following from this, the EGO could also serve as a tool for selecting clients or subjects for specific therapeutic interventions.

East-West Questionnaire (EWQ; Gilgen & Cho, 1979a)

Cho and Gilgen (1980) state that "the EWQ [is] designed to reflect the basic monism of [Eastern] thought and the dualism inherent in traditional Western philosophy and religion" (p. 1093). Stated differently, the EWQ has been developed to "... measure traditional Eastern and Western perspectives on reality, ... man-in-the-world" (Gilgen & Cho 1979a, p. 835), and belief systems (Gilgen, Cho & Stensrud, 1980). "By Eastern is meant the basic assumptions common to Buddhism, Taoism, Confucianism and Hinduism; and by Western, the Judeo-Christian and Greek underpinnings of European and American thought" (Gilgen & Cho, 1979a, p. 835).

According to Gilgen and Cho (1979a), the Eastern perspective is defined as a non-dualistic view of reality which produces the following beliefs or assumptions: humans are not separate from nature but are one with it; physical, mental and spiritual realities are one; humans should recognize their essential unity with nature, mind and spirit rather than expend energy analyzing, labelling, categorizing, manipulating, or exploiting them; as a result of their oneness with the universe, humans should experience a sense of comfort and belongingness in any place and with any person; science and technology are not an effective means of improving the human condition; "enlightenment" directly concerns achieving a sense of oneness with the universal;

enlightenment is a state where all dichotomies vanish; and, meditation is the principle vehicle for achieving enlightenment.

The Western perspective, conversely, is defined by Gilgen and Cho (1979a) as a dualistic view of reality which generates the following beliefs: humans have traits which set them apart from nature and the spiritual; the human being is divided into a body, a spirit and a mind; there exists a personal God who is above the realm of humans and nature; humans must control and exploit nature to ensure their survival and prosperity; rationality and analytic problem solving are valued and should be emphasized; science and technology have provided beneficial things for humans and will continue to do so in the future, and; competition and activity are seen as valuable and should be reinforced.

The EWQ is a paper and pencil test that consists of 68 items (actually, 34 East-West item pairs) which are rated by respondents on a five-point Likert scale for the degree to which they agree with the content of the test items. The 34 pairs of items are unequally divided among five categories: 1) man and the spiritual, 2) man and nature, 3) man and society, 4) man and himself, and 5) the rationality of man. Gilgen and Cho (1979a) explain that East-West item pairs were constructed in order to "neutralize response set" (p. 837).

In terms of scoring, Gilgen and Cho (1979a) state that "while the questionnaire can be scored in a number of ways, the selected scoring procedure involves computing a percentage Eastern thought score" (p. 839). They state that this score can be derived using the following procedure: a) assign a weight of two to "strongly agree" responses and one to "agree but with some reservations" responses, b) compute scores of agreement for the Eastern and Western statements, c) divide the Eastern agreement score by the agreement score which is the sum all of the items and, d) multiply by 100. Gilgen and Cho (1979a) contend that while their recommended scoring procedure does not utilize all of the test data (e.g., 3, 4, and 5 responses are discarded), it is advantageous in that it provides a score scale which ranges from 0 to 100. Generally, when using the above procedure, score elevations can be interpreted as reflecting the extent to which belief systems of respondents which are more Eastern in nature.

The EWQ has demonstrated satisfactory reliability as reflected in a two-week test-retest correlation of .76 (Gilgen & Cho, 1979a). Evidence has been provided which supports the convergent and discriminant validity of the instrument (Gilgen & Cho, 1979b). For example, as the researchers expected, the EWQ was found to significantly relate to the Consciousness I, II and III scales (Krus & Tellegen, 1975) and the Zen Scale (Krus & Krus, 1978) (Gilgen & Cho, 1980). Moreover, the EWQ appears to have excellent criterion validity as has been shown in its ability to differentiate between groups of subjects known to vary in the "Eastemness" in their thinking. The EWQ has demonstrated such differences with Buddhists, transpersonal psychologists, arts and business college students and business people (Gilgen & Cho, 1979a), Korean and American college students and Korean Buddhists and Korean Christians (Cho & Gilgen, 1980), and transpersonal psychologists and middle management business executives (Gilgen, Cho & Stensrud, 1980). It is important to note that some sex differences have been observed on the EWQ (Gilgen & Cho, 1979b).

On the surface, the EWQ can be understood simply as a measure of some gross differences in cultural world view as expressed in Eastern versus Western societies, or, more exactly, the degree of Eastern or Western enculturation that a person has experienced. Following from this, the EWQ can be severely criticized for relying on highly reductionistic and impressionistic definitions of Eastern and Western world views. However, in consideration that it is a measure of belief systems and not transpersonal experience per se and given the existing research supporting the validity of the measure, especially its ability to differentiate between subject populations of different cultures, religions and world views, it appears that the EWQ could be effectively used in research involving heterogeneous subject populations in which a plurality of cultures, religions and world views are represented. Moreover, the EWQ may prove useful in applied research as both a screening tool to aid in the assignment of subjects/therapists to various treatment conditions involving an Eastern orientation (e.g., Eastern-influenced therapies and techniques versus traditional Western-based psychotherapies) and as a measure of treatment outcome for subjects who have undergone an Eastern-based therapy or technique (e.g., to determine if there is an increase in Eastern or Western thought in individuals who experienced Vipassana meditation versus conventional psychotherapies).

Paranormal Beliefs Scale (PBS; Tobacyk & Milford, 1983)

The PBS is a self-report paper and pencil questionnaire which is designed to assess a factor analytically derived multi-dimensional conception of paranormal beliefs. Impetus for the construction of the PBS was derived from Tobacyk & Milford's (1983) perception that existing measures of paranormal beliefs are limited due to their reliance on untested assumptions about the structure of paranormal beliefs (e.g., many measures of paranormal beliefs such as Randall & Desrosiers' [1980] were constructed under the assumption that belief in the paranormal is a unidimensional construct without any empirical support for such an assumption). The test authors surmised that "a more valid procedure in the construction of a paranormal belief-assessment instrument might be first, to assess the structure of paranormal belief in a sample and, second, to base the construction of an assessment instrument on the paranormal belief structure obtained in that sample" (Tobacyk & Milford, 1983, p. 1030).

Based on this strategy, Tobacyk and Milford devised an item pool of 61 items which they either borrowed from existing assessment instruments or constructed themselves. This item pool was assumed to be a comprehensive representation of the content domain encompassed by the construct of paranormal beliefs. Thereafter, these 61 items were administered to a sample of 391 university students who used a five-point Likert scale (ranging from 1- "strongly disagree with this item" to 3-"undecided or don't know" to 5- "strongly agree with this item") to rate the extent to which they agreed with the content of the items. Following this, Tobacyk and Milford (1983) subjected the item scores to a principal axis factor analysis (varimax rotation) which resulted in the extraction of 13 factors. After examining the obtained factors for interpretability and stability, seven were retained and used to form the basis of a multidimensional definition of paranormal beliefs. In addition, items which produced

the highest loadings on these factors were kept and used to operationalize each component of paranormal beliefs. In the end, a 25-item measure of paranormal beliefs which consists of seven subscales was developed. The seven subscales consist of the following: 1) Traditional Religious Belief (i.e., traditional Christian belief), 2) Psi Beliefs (e.g., psychokinesis, mental telepathy), 3) Witchcraft (e.g., black magic, voodoo, spells, witches), 4) Superstition, 5) Spiritualism (e.g., communication with the dead, astral projection, reincarnation), 6) Extraordinary Life Forms (e.g., belief in the existence of controversial life forms such as the Loch Ness monster, Big Foot and the Abominable Snowman) and 7) Precognition (i.e., belief in predicting the future through paranormal means). The first four subscales are made up of four items each whereas the latter three subscales are made up of three items each. Respondents are provided with a five-point Likert scale ranging from 1-strongly disagree to 5-strongly agree, to rate each item for the extent to which they agree that it embodies a belief they have. PBS subscale and total scores are obtained by summing item responses. The higher the score on a subscale or the total PBS, the more strongly the person holds beliefs about the existence of paranormal phenomena.

The PBS and its subscales have been shown to have satisfactory reliability; the total PBS obtained a four-week test-retest reliability of .89 while the seven subscales produced reliabilities ranging from .60 (for the Precognition subscale) to .84 (for Psi Belief). Moreover, evidence of satisfactory validity has been provided. For example, intercorrelations between the PBS subscales revealed that the seven components of paranormal beliefs appear to be largely independent of each other. Also, convergent and discriminant validity has been supported as suggested in the findings of expected correlations between the PBS and its subscales and a measure of locus of control (indicating that persons who have a more external locus of control tend to have greater belief in the paranormal), a measure of death threat (interpreted as indicating that individuals who score higher on Traditional Religious Belief tend to have less fear of death), a measure of self-esteem and adjustment (indicating that most aspects of paranormal beliefs are not related to level of adjustment; as hypothesized, Traditional Religious Beliefs significantly correlated with this measure suggesting that people who score higher on this subscale show better self-esteem), a measure of uncritical inference making (suggesting that Spiritualism is more associated with uncritical inferences whereas Traditional Religious Beliefs are not), a dogmatism scale (indicating that only Witchcraft is associated with a dogmatic orientation), and a measure of irrational beliefs (indicating that Superstition and Spiritualism are associated with irrational beliefs) (Tobacyk & Milford, 1983). Finally, Tobacyk and Milford (1983) found that females scored significantly higher on the PBS subscales of Traditional Religious Beliefs and Precognition while males scored higher on the Extraordinary Life Forms subscale; outside of these relationships, no other notable sex differences were found.

The PBS has met with some measure of success as reflected in the number of published studies using the scale (e.g., Davies, 1988; deBarbenza, Claribel & deVila, 1989; Gagne & McKelvie, 1990; Irwin, 1990; Tobacyk, 1984, 1985a, 1985b; Tobacyk & Milford, 1984, 1988; Tobacyk, Milford, Springer & Tobacyk, 1988; Tobacyk, Miller, Murphy & Mitchell, 1988; Tobacyk & Wilkinson, 1990; Williams, Taylor & Hintze, 1989).

Tobacyk and Milford (1983), based on their findings, state that the PBS may be useful in the study of the implications that paranormal beliefs have for "personality functioning, especially that which concerns locus of control, death threat, self-concept, inference making, dogmatism, and irrational beliefs" (p. 1036). The PBS has been included in this review because it seems to be a soundly constructed measure of paranormal beliefs which may prove useful for investigations into the relationship between belief systems and how people organize their experience (e.g., how do people who have spiritual experiences or who have a spiritual orientation to life relate to paranormal beliefs? Do they believe in out-of-body experiences, extra-sensory perception and the like?).

It is noteworthy that a revised version of the PBS has been developed (PBS-R; Tobacyk, 1991). The PBS-R differs from the PBS in that it utilizes a seven-point rating scale, is made up of 26 items, and contains revised items in the Precognition, Witchcraft and Extraordinary Life Forms subscales. Tobacyk (1991) states that "these improvements resulted in greater reliability [four-week test-retest reliability of .92 for total PBS-R] and validity, less restriction of range, and greater cross-cultural validity in Western cultures" (p. 2). (A copy of the PBS-R can be obtained by writing Jerome J. Tobacyk, Box 10048 Behavioral Sciences, Louisiana Tech University, Ruston, LA 71272). To date, we are only aware of two studies which utilize the PBS-R. In the first, Tobacyk (1992) confirmed his hypothesis that "relationships between paranormal beliefs and locus of control are moderated by both self-monitoring and idealism" (p. 2). Second, Momeau, MacDonald, Holland and Holland (in press) found significant relationships between the PES (reported above) and a measure of complex partial epileptic signs. In both of these instances, the findings suggest that the PBS-R may prove to be as effective as the PBS in research.

Assessment Schedule for Altered States of Consciousness (ASASC; van Quekelberghe, Altstotter-Gleich & Hertwick, 1991)

The ASASC is an multiscaled instrument which was designed to serve as a comprehensive measure of altered states of consciousness (ASCs). The test authors state that the development of the ASASC and its subscales was guided by various definitions and taxonomies of ASCs including Tart's (1975, 1977), Gowan's (1978-1979) and Fischer's (1975). However, they cite Ludwig's (1966) definition of ASC as being most central to test construction. Ludwig (1966) defines ASCs as

any mental state(s), induced by various physiological, psychological, or pharmacological maneuvers or agents, which can be recognized subjectively by the individual himself (or by an objective observer of the individual) as representing a sufficient deviation in subjective experience or psychological functioning from certain general norms for that individual during alert, waking consciousness (p. 226; taken from vanQuekelberghe et al., 1991, p. 377).

VanQuekelberghe et al. (1991) assert that their intent in creating the ASASC "was to construct an instrument for assessing any altered-states experiences a person may have had and is able to recall at the time of questionnaire administration" (p. 378-379).

The ASASC is comprised of 325 items which are unequally divided into 14 subscales. Respondents are provided a five-point rating scale (0-not at all, 1 - just a little, 2- to some extent, 3- to a large extent and 4- completely) to rate the extent to which the items apply to themselves and their own experiences and beliefs. Vanquekelberghe et al. assert that "the items were formulated carefully so that respondents would not get the impression that such extraordinary experiences could be viewed as psychopathologic" (p. 379). Moreover, they comment that each subscale has its own instructions and thus can be administered independently of each other.

The fourteen subscales of the test were devised based upon interview data with

experts in ASCs, literature reviews, and upon the nature of the items themselves. These subscalcs consist of the following: 1) Personal data (22 items): this subscalc consists of questions which asks respondents to provide general demographic data (e.g., sex, age, education) as well as information pertaining to their experiences with any activities (e.g., psychotherapy, meditation) or substances (e.g., drugs) associated with ASCs; 2) Extraordinary Mental Processes (22 items): "this subscale is used to assess unusual trains of thought, strange ideas, or extraordinary experiences" (p. 380); 3) Parapsychology, own experiences (11 items): assesses the respondent's personal parapsychological experiences (e.g., precognition, telepathy); 4) Parapsychology, own view (9 items): "in this subscale, the subject estimates the probability of the occurrence of typical ESP" (p. 380); 5) Esoterics (16 items): "the relatively broad area of esoteric practices [e.g., ranging from everyday practices such as horoscopes and superstitions to spiritual healing and participating in seances] and 'supersensory perception' are covered in this subscale" (p. 380); 6) Positive Mystic Experiences (40 items): this subscale measures ecstatic states of consciousness akin to peak experiences; 7) Negative Mystic Experiences (40 items): this subscale is designed to assess intense negative experiences "such as those that may be encountered on a bad trip. Fear of dying, fear of disintegrating or losing control over oneself or feeling surrounded by 'evil forces' are a selection of the topics covered ..." (vanQuekelberghe et al, 1991, p. 380); 8) Imagination (18 items): assesses imagination and visualization ability; 9) Dreams (44 items): this subscale taps two areas; ... the extent to which the subject is preoccupied with his/her dreams and ... the occurrence of different types of dreams (e.g., lucid dreams, nightmares, dreaming of paradise, etc.)" (vanQuekelberghe et al., 1991, p. 381); 10) Dissociation (23 items): "this subscale assesses information pertaining to the intensity of experiences of the trance or hypnotic type, as well as tendencies toward dissociation. Deep concentration, comparable to inner contemplation, as well as suggestibility, are important aspects of this subscale" (p. 381); 11) Hallucinations (15 items): concerns "hallucinatory images and mental processes resembling megalomaniac ideas and delusions of being influenced by alien forces" (p. 381); 12) Hypersensitiveness (12 items): "this subscale covers two areas... synesthetic experiences and abilities, such as perceiving the notes of a tune in colors ... [and] perceptual sensations of an extreme nature and heightened body sensitivity" (p. 381); 13) Changed Feeling of Time and Space (23 items): this subscale assesses altered body sensations and perception of time as well as the perception of object transformation; and 14) Change (30 items): this subscale assesses the long-term effects of experiences (positive and negative ones) on personal development.

The ASASC has been shown to have good reliability with the fourteen subscales producing alpha coefficients ranging from .80 to .98 and Guttman split-half coefficients ranging from .81 to .96. The validity of the measure also appears to be satisfactory; vanQuekelberghe et al. (1991) obtained favorable factor analytic results suggesting that each subscale "seemed to fit to the experiential area for which the items were constructed" (p. 386). Moreover, no age, education or religious denominational effects were found to effect ASASC subscale scores. However, some sex differences were observed; women were found to score higher on three subscales (Parapsychology, own experiences, Parapsychology, own view and Dreams). In addition, individuals actively practicing their religion obtained significantly greater scores on three subscales (Parapsychology, own view, Esoterics and Dissociation).

Additional analyses completed on the ASASC which support its validity include the following: Intercorrelations of subscale scores reveal correlations ranging from .40 to .82; analysis of ASASC subscale scores pertaining to personal experiences through nonmetric multidimensional scaling produced an orthogonal two dimensional solution. The first dimension is described as supersensory experiences/ecstasy whereas the second is said to embody imagination/existential experiences/spirituality. Finally, the subscale scores have been used to devise distinct profile types for specific groups of individuals including those who have had extensive drug experiences, persons who engage in esoteric practices and people suffering from schizophrenia, major depression and heroine addition (vanQuekelberghe et al., 1991).

The ASASC is an ambitious and unique instrument in its attempt to be a comprehensive measure of altered states of consciousness. Given the evidence in favor of its validity and reliability, the ASASC appears to hold much promise for use in research concerning the occurrence and subjective nature of non-ordinary experiences. Even though the entire measure is somewhat long, vanQuekelberghe et al. (1991) emphasize that testing time can be minimized by administering only those subscales which are needed in a specific study. Furthermore, they mention that a 100-item short form of the ASASC is available (no validity or reliability data is presented). Despite this, knowledge regarding the instrument's construct validity, especially convergent and discriminant validity, and its empirical relationship to other measures of theoretically similar and dissimilar constructs is completely absent. Thus, the instrument should be used with caution until additional psychometric research is completed.

Integration Inventory- (II; Ruffing-Rahal, 1991)

The II is an instrument designed to assess well-being or, more specifically, well-being integration in older persons. The measure was developed to address the need "for validated instruments in clinical practice to facilitate the appraisal and tracking of wellness in holistic, experiential and personalized terms" (Ruffing-Rahal, 1991, p. 10).

Based upon a grounded theory analysis of several interviews with older adults deemed to exhibit well-being, Ruffing-Rahal devised a conception of wellness that consists of three core themes labelled Activity, Affirmation and Synthesis which she describes as follows:

... Activity addressed the individual's selection and structuring of meaning-invested realms of activity in everyday life (physical, psychological, spiritual, intellectual), as well as the capability to successfully perform them. The second core theme, Affirmation, related to the individual's perception of a continuity of life meaning, past and ongoing, and expressed specifically in such positive assertions as satisfaction, hopefulness, and religiosity. The third core theme, Synthesis, referred to the individual's reconciliation of painful life experiences and resilient capacity to incorporate and unify the full diversity of past experience into an individual framework of meaning (p. 11)

Ruffmg-Rahal (1991) adds that her model of well-being seems to be consistent with the Jungian notion of individuation (i.e., the consciousness differentiation and integration of aspects of the psyche or personality into itself); "accordingly, integration connotes the attainment of well-being in terms of the meaningfulness of daily life" (p.

After devising her model of well-being, Ruffing-Rahal constructed an initial item pool of forty items from the transcripts from the aforementioned interviews. She reports that the forty items were revised and refined based upon four years of clinical work and community health research to establish their content and face validity. Following this, the forty refined items were reviewed by eight gerontology and community health experts for their relevance in the assessment of well-being. All the items were judged as having representative content.

The II is a 37-item measure which utilizes a six-point Likert scale ranging from 1-strongly disagree to 6- strongly agree. Ruffing-Rahal states that half of the items are negatively phrased as a strategy to minimize the effects of response bias. Moreover, she indicates that the Likert scale was designed without a neutral response option in order to evade "any tendency to influence response patterns" (p. 13). Though the II could be group administered, Ruffing-Rahal states that the measure can be completed in a personal interview in about twenty minutes. The II is scored by reversing the responses on negatively phrased items and summing the item responses.

The reliability of the II has been shown to be satisfactory as reflected in an internal consistency (alpha) coefficient of .91 (Ruffing-Rahal, 1991). The content validity of the instrument was established through the refinement and review process discussed above. The construct validity (actually convergent validity) of the instrument was evaluated by examining its relationship to two measures of theoretically related constructs, namely the Philadelphia Geriatric Center Morale Scale (PGCMS; Lawton, 1972, 1975) and the Spiritual Well-Being Scale (SWBS; Paloutzian & Ellison, 1982), using a sample of older adults (mean age= 77 years). Ruffing-Rahal obtained significant correlations between the II and the total and subscale scores of both the PGCMS and the SWBS (total SWBS: r= .52, p<.0001; Religious Well-Being scale: r= .31, p<.0001; Existential Well-Being: r= .73, p<.0001). Lastly, subject ratings of their own well-being in the areas of health, comparison with others, satisfaction with life and happiness, all produced significant correlations with the II, providing further evidence for the validity of the instrument.

The II appears to be a potentially useful instrument for the assessment of well-being from a developmental perspective. Though the instrument has been designed to

assess well-being integration in older populations and has been validated as such, it seems that it may lend itself for use with populations of varying ages. However, given that the II has not been empirically validated or systematically utilized with younger persons, researchers should be cautious in their interpretation of II scores obtained from such populations. Research investigating the relationship of age to II scores would prove valuable in establishing the external validity of the measure. In addition, further work on the validity of the II, especially in terms of factorial validity needs to be examined before strong confidence in the measure can be had. Despite this, the II may be useful for "tracking health and wellness interventions [such as meditation or psychotherapy] on an interview or self-administered basis" (Ruffing-Rahal, 1991, p. 13). The II might also be used to generate unique insights into the relationship of well-being to transpersonal experience.

Boundary Questionnaire (BQ; Hartmann, 1991)

The BQ is a measure of the thinness or thickness of boundaries. The development of the BQ was precipitated by Hartmann's research and clinical work on nightmares, dreaming and sleep disorders. In particular, Hartmann devised a theory of personality boundaries through interview and projective test (primarily Rorschach) data obtained from hundreds of research participants and clients seeking treatment for sleep disorders. Hartmann contends that his concept of boundaries, though not necessarily a new one, allows for an explanation of behavior which has not been adequately captured by personality theories to date (e.g., individual differences in ego strength, consistency of use of defense mechanisms, perception of self, other, and environment, ability to experience non-ordinary states of consciousness, prevalence of psychopathology and the like; the reader is referred to Hartmann, 1991 for a more detailed discussion). Though he applauds his qualitative approach to the study of boundaries as being valid and insightful, he reasoned that information on boundaries could be more simply obtained through the use of a standardized questionnaire.

In general, boundaries can be understood as the psy chological area which separates one component or dimension of the psyche from another and/or from the external world. Stated differently, boundaries refer "broadly to the degree of connection or separation between any two entities, processes or functions in the mind" (Hartmann, 1991, p. 233). The specific types of boundaries which Hartmann (1991) has conceptualized are operationalized in a 145-item questionnaire. There are twelve categories of boundaries that are included in the BQ. These consist of the following: 1) Sleep/ Wake/Dream (12 items) (e.g., "when I awake in the moming, I am not sure whether I am really awake for a few minutes"; Hartmann, 1991, p. 58); 2) Unusual Experiences (19 items) (e.g., "I have had deja vu experiences"; p. 59); 3) Thoughts, Feelings, Moods (16 items) (e.g., "Sometimes I don't now whether I am thinking or feeling"; p. 59); 4) Childhood, Adolescence, Adulthood (6 items) (e.g., "I am very close to my childhood feelings'; p. 59); 5) Interpersonal (15 items) (e.g.. When I get involved with someone, we sometimes get too close"; p. 59); 6) Sensitivity (5 items) (e.g., "I am very sensitive to other people's feelings"; p. 59); 7) Neat, Exact, Precise (11 items) (e.g., "I keep my desk or worktable neat and well organized"; p. 59); 8) Edges, Lines, Clothing (20 items) (e.g., "I like houses with flexible spaces, where you can shift things around and make different uses of the same rooms"; p. 59); 9)

Opinions about Children and Others (8 items) (e.g., "I think a good teacher must remain in part a child"; p. 59); 10) Opinions about Organizations (10 items) (e.g., "In an organization, everyone should have a definite place and a specific role"; p. 60); 11) Opinions about People, Nations, Groups (14 items) (e.g., "There are no sharp dividing lines between normal people, people with problems, and people who are considered psychotic or crazy"; p. 60); and 12) Opinions about Beauty, Truth (7 items) (e.g., "Either you are telling the truth or you are lying; that's all there is to it"; p. 60). Hartmann asserts that the items within each category are designed to "cover as wide a range as possible" (p. 60). In addition, he indicates that about two-thirds of the items are worded so as to measure thinness of boundaries while the remaining third are worded in the reverse (i.e., to assess for thickness of boundaries).

In order to complete the BQ, respondents are provided a five-point scale ranging from 0 (no, not at all or not at all true of me) to 4 (yes, definitely or definitely true of me) to rate the extent to which they agree with each item (or find the item to be descriptive of themselves). Scoring is completed by reversing the response scores for the items assessing boundary thickness (i.e., 0=4, 1=3, 2=2, 3=1 and 4=0) and summing the item responses. Scores are obtained for each of the 12 boundary categories. As well, the first eight categories above are summed to obtain a Personal Total score, the latter four categories are summed to obtain a World Total score and all categories are summed to generate a total boundary score (called SumBound). For all categories and total scores, scores can be interpreted as measures of boundary thinness such that the greater the score, the thinner the boundaries.

Hartmann (1991) reports that a preliminary version of the BQ was revised based upon detailed comments obtained from thirty colleagues and students who completed the questionnaire. Thereafter, the measure was administered to over 800 individuals and correlations of items to SumBound scores were calculated. Hartmann found that most of the items correlated well with the total boundary score. However, seven of the items were found not to correlate adequately. Consequently, when he completed an analysis of the psychometric properties of the BQ, he decided to not include these items. Thus, all reliability and validity data arc based upon 138 items.

The reliability of the BQ has been found to be good, as reflected in an internal consistency coefficient (alpha) of .93 (Hartmann, 1991). The validity of the instrument has also been examined and favorable evidence provided. For instance, a principal components analysis of BQ item scores resulted in the extraction of a 13factor solution of which the first twelve appeared to support Hartmann's conception of boundaries. Moreover, Hartmann (1991) found that the criterion validity of the BQ is satisfactory; the BQ successfully differentiated between groups of individuals known to vary in the thinness of their boundaries (e.g., artists vs. naval officers). Further evidence of criterion validity has been provided by Celenza (1986) who hypothesized and found that individuals diagnosed with borderline personality disorder demonstrate thinner boundaries as assessed by the BQ and by Levin (1986) who found that nightmare sufferers had notably thinner boundaries than individuals not experiencing such problems. Hartmann' notes that some age and sex differences have been observed with the BQ such that women scored slightly thinner on a consistent basis whereas older subjects scored thicker than younger respondents.

In addition to the above psychometric support for the BQ, several investigations have been undertaken which look at the relationship of the instrument to other measures including the MMPI validity and basic clinical scales (Hartmann, 1991), special index scores measuring boundaries on the Rorschach and instruments assessing schizotypal personality (Adair, 1990; Levin, 1986), measures of hypnotizability such as the Harvard Group Scale of Hypnotic Susceptibility, the Absorption Scale and the Field Inventory (Barrett, 1989) and instruments designed to assess the maintenance of emotional distance and defense against affect (Celenza, 1986). This research suggests that the BQ is assessing constructs which a) seem to be largely independent of existing measures of personality, neuroticism and gross psychopathology but associated with some personality disorders such as borderline and schizotypal personality, b) are related to a measure of boundary deficit on the Rorschach, c) are significantly correlated with a person's degree of hypnotic susceptibility (with the strongest relationship produced with the Absorption scale, r= .54, p<.001), and d) are negatively related to measures of defense against affect and emotional distance such that thicker boundaries are associated with greater emotional distance from others and greater defense against strong emotionality. Furthermore, Hartmann (1991) reports the results of a study looking at the relationship of BQ scores to performance on a neuropsychological test battery; as expected, persons with thick boundaries approached problems in a systematic manner but demonstrated little variability or flexibility in their approach, whereas individuals with thin boundaries were less systematic but more flexible and adaptable in their approach to problem solving. Lastly, the BQ has been successfully used in investigations examining the relationship of boundary thinness to autonomic nervous system arousal, the frequency of dreaming, and to a variety of sleep disorders (the reader is referred to Hartmann [1991] for his discussion of this research).

The BQ appears to be an instrument which has tremendous potential for deepening our understanding of the role of boundaries on virtually all aspects of human functioning, including the transpersonal dimensions. Outside of the studies mentioned above, the BQ has been used in research on dreaming (both lucid and nightmare) and creativity (Galvin, 1990; Hartmann. 1989; Levin, Galin & Zywiak, 1991), areas of which have drawn attention in the transpersonal area. Additional applications of the BQ include use in research examining the relationship of boundary thinness to the occurrence of transpersonal experiences and non-ordinary states of consciousness and, conversely, in investigations on the impact of such experiences on an individual's boundaries.

Personal Philosophy Inventory (PPI; Persinger & Makarec, 1987, 1993)

The PPI is an instrument which is designed to assess the presence of behaviors generally associated with anomalous temporal lobe activity as found in temporal lobe epilepsy (i.e., temporal lobe signs). The main impetus behind the construction of the measure was to "study the existence of temporal lobe signs within the normal population" (Persinger & Makarec, 1987, p. 181), in order to explore the hypothesis (Persinger, 1983,1984a, 1984b; Persinger & Valliant, 1985) that anomalous transient electrical foci in the temporal lobe structures (most notably the amygdaloid and hippocampal structures) which has come to be associated with conditions, beliefs and

states of consciousness such as glossolalia, peak experiences, paranormal beliefs and experiences, and temporal lobe epilepsy/psychosis (e.g., Mahl, Rothenberg, Delgado & Hamlin, 1964; Makarec & Persinger, 1985, 1990; Neppe, 1983; Persinger, 1984b; Persinger & Valliant, 1985), is a normally occurring phenomenon which differs in its pathological (e.g., temporal lobe epilepsy) and nonpathological manifestations only in terms of its frequency, duration and intensity.

The PPI is an instrument consisting of 140 yes/no items. Persinger and Makarec (1987) report that "in addition to a variety of control and information statements, it contains items that were designed as less intense equivalents of the most frequent experiences of behaviors that are reported by patients who were diagnosed with complex partial epilepsy. Many of the signs are also reported by patients during [direct] electrical stimulation [of the temporal lobe]" (p. 181). Twenty items ask for information which the test constructors reasoned may be relevant to temporal lobe functioning (e.g., church attendance, hand preference). Persinger and Makarec (1993) state "there are two items per theme to check consistency" (p. 36). Thirty items are described as assessing beliefs that range from "exotic beliefs to extreme religious opinions, egotistical references and fear" (Persinger & Makarec, 1993, p. 36). Fourteen items of the PPI are used to make up a control or "mundane experiences" scale which is included "to control for 'yes' responding" (Persinger & Makarec, 1993, p. 36). Also, an admission scale which contains nine MMPI Lie scale items is incorporated to identify "silly" responders. Lastly and most importantly, fifty-six items comprise the Total Temporal Lobe Signs (TTLS) scale. The TTLS scale is broken down into several subclusters including Complex-Partial Epileptic-Like Signs (CPELS), Interictal-Like Behaviors (ILB) and Temporal-Lobe Relevant (TLR) indicators. Persinger and Makarec (1993) describe these item subclusters as follows:

The CPELS items refer to experiences that are very similar or analogous to those most frequently reported by patients during limbic seizures, while ILB items refer to behaviors that are similar to those reported by patients when (scalp) EEG- detectable seizures are not occurring although interictal spikes may be visible. The TLR indicators compose a cluster of items that are similar to behaviors that traditionally have been associated with temporal lobe epilepsy (p. 37).

The various PPI subscale scores are calculated as a percentage of yes responses, a procedure which involves summing the number of yes responses for each subscale, dividing the sum by the number of items belonging to the subscale and multiplying by 100.

The reliability of the TTLS scale and its component item subclusters has been shown to be satisfactory as suggested in test-retest correlations of .90, .85 and .70 for 10-day, 21-day and 100-day retest intervals, respectively. The control subscale has also generated comparable test-retest correlations over the 10- and 100-day retest intervals (Persinger & Makarec, 1987). In addition, the TTLS subscales have produced inter-item reliability coefficients (alpha) of about .70 (Persinger & Makarec, 1993).

The criterion validity of the PPI has been shown to be adequate. Makarec and Persinger (1985, 1990) obtained correlations of moderate strength between scores on

temporal lobe item clusters and religious beliefs and specific electric patterns in the temporal lobes, but not the occipital lobes, of a sample of normal subjects. Moreover, the TTLS subscale clusters, especially CPELS, has been successfully used to differentiate between groups known to differ in the frequency, intensity and duration of transient temporal lobe activity they experience (i.e., groups known to vary in the extent to which they report experiencing temporal lobe signs; e.g., temporal lobe epileptics, meditators, artists, and persons reporting paranormal and religious experiences; Momeau et al., in press; Persinger, 1984a, 1984b, 1984c, 1993; Persinger & Makarec, 1993). As well, Persinger and Makarec (1993) state that they have observed consistent CPELS score elevations in "patients referred for mild to moderate anxiety, depression and career (self-identity) crisis . . ." (p. 34). Evidence for the factorial validity of the PPI has been much more equivocal but is still supportive of the instrument; Persinger (1984c) factor analyzed the TTLS and control cluster items and produced a two factor solutions (TTLS items loaded on the first factor; control items loaded on the second factor). Conversely, Persinger & Makarec (1993) obtained four factor solutions for men and women separately when they factor analyzed the 56 TTLS items (which they labelled Sensory Enhancement, Affective-Dissociation, Ego-alien Intrusion and Literary Interests).

The PPI has been used to examine the relationship of temporal lobe signs and a variety of psychological constructs in normal individuals (with normality being defined by MMPI criteria). Persinger and Makarec (1993) assert that

normal volunteers . . . who display elevated CPELS are also significantly more: (1) suggestible (Ross & Persinger, 1987) according to Spiegel's (Spiegel & Spiegel, 1978) Hypnotic Induction Profile; (2) subject to dissociative states (Richards & Persinger, 1991); (3) prone to subjective paranormal experiences and beliefs (Persinger & Valliant, 1985); and (4) likely to endorse multiple childhood fantasies and imaginings according to the Wilson-Barber scale (1978) (p. 34).

Persinger and Makarec (1993) add that the notable relationship between the CPELS and imagination, fantasy and suggestibility, factors which have been proposed as facilitating therapeutic interventions (e.g., Rossi, 1986), suggest that the instrument may be useful in clinical settings.

The PPI is a distinctive instrument which has served Persinger and his colleagues well in providing evidence in support of their continuum model of temporal lobe functioning (Persinger & Makarec, 1993). Even though the measure is based on a highly reductionistic view of numerous experiential states and behaviors (i.e., that experiences such as mystical, religious and paranormal experiences as well as temporal lobe epilepsy are a function of the same type of transient brain activity), it nonetheless appears to lend itself for use in transpersonally oriented research. For instance, the PPI could be used to in exploratory research to examine the relationship between types of transpersonal experiences and temporal lobe functioning.

Holistic Living Inventory (HLI; Stoudenmire, Batman, Pavlov & Temple, 1985)

The HLI was constructed in an attempt to eliminate the lack of clarity that the notion of holistic living (i.e., holism), was receiving in the literature during the 1970s and

1980s. According to Stoudenmire et al. (1985), the HLI delineates specific dimensions of holistic living which are defined in operational terms. On the HLI, the assessment of holistic living is grounded on behaviors which are seen as leading to optimal functioning. The inventory focuses on reported behaviors and not on thoughts or feelings of people nor on what they think or feel. This was done under the assumption that, "if people engage often enough and accurately enough in the relevant activities, sooner or later they will achieve their desired ends" (Stoudenmire et al., 1985, p. 303).

The authors of the HLI selected four components or dimensions of holistic living which are in accord with the conceptions of holism held by such groups as the American Holistic Medical Association and the Institute of Religion and Health. These dimensions, and the definitions of optimal functioning which apply to each of them, are as follows:

a) physical dimension: optimal functioning is defined as the enhancement of physical fitness through responsible exercise and weight control, temperate use of non-nutritive substances, and the regular monitoring and regulation of the physical functioning; b) emotional dimension: optimal functioning is defined as the enhancement of emotional satisfaction through responsible pleasure seeking in all areas of people, places and things including attention to sexuality; the avoidance and/or early remediation of unpleasant emotions such as anger, depression and anxiety; c) mental dimension: optimal functioning is defined as the enhancement of mental development through pursuits of reason and knowledge, the cultivation and depreciation [sic] of aesthetics and the avoidance and/or remediation of any irrational attitudes about the nature of mankind; d) spiritual dimension: optimal functioning is defined as the enhancement of spiritual "oneness" with whatever a person considers to be higher than himself as an individual through the use of reason, experience and intuition; the ongoing development of and the adherence to a responsible ethical system (Stoudenmire et al., 1985, p. 303-304).

The HLI has eighty multiple choice items, twenty for each of the four dimensions. Each item has five choices ranging from the least optimal (A), to the most optimal (E). Scoring for each item is one point for A, two points for B, three for C, four for D and five for E. Scores consist of the item sums for each of the four dimensions. The higher a score is on a given dimension, the more optimal a respondent is functioning on that dimension.

Research exploring the psychometric characteristics of the HLI has shown that the inventory has adequate reliability as indicated in Spearman-Brown split-half reliabilities ranging from .72 for the emotional dimension to .91 for the mental dimension (Stoudenmire et al., 1985). Satisfactory validity (including a demonstrated ability to differentiate between known groups) for each of the four dimensions has also been shown (Stoudenmire et al., 1985; Stoudenmire, Batman, Pavlov & Temple, 1986), though a significant relationship between the mental and spiritual dimensions has been observed (r= .33, p< .01; Stoudenmire et al., 1985). Also, a significant age effect has been found on the spiritual dimension indicating that older persons (e.g., forty years and over) report engaging in more optimal spiritual behaviors than do younger persons (Stoudenmire et al., 1985).

The HLI has been used effectively in research as a tool for assessing treatment improvement in forty-five personality disordered residents of a six-week alcohol

treatment program (Stoudenmire, Stevens & Cumbest, 1989). In addition, the items of the HLI have been successfully used as a basis for developing a repertoire of positive modelling behaviors for disturbed children (Stoudenmire, Temple, Pavlov & Batman, 1988).

HLI is unique among the measures reported in this paper in that it is the only one which assesses four recognized aspects of well-being, including the spiritual. This should make the HLI a particularly appealing test since a researcher interested in the relationship between spirituality and mental or physical health, for example, would only have to administer the HLI instead of using a battery of measures, thereby saving time while also assessing a wide range of constructs. In terms of applications to transpersonal research topics, the HLI could be used to assess the relative impact of psychotherapy (i.e., the differential effects of various therapies, including meditation) or spiritual experience, on people's level of functioning. The HLI may also be used to show differential change in areas of optimal functioning in clients across different therapeutic modalities (e.g., bioenergetics versus mindfulness meditation).

Death Transcendence Scale (DTS; Hood & Morris, 1983)

The DTS was constructed to assess a conception of death transcendence devised by Hood and Morris (1983) which, in turn, is based on the work of Lifton (Lifton, 1976, 1979; Lifton & Olson, 1974). The primary motivation behind the construction of the instrument was the perception of Hood and Morris that empirical work on death has been hindered by a lack of an organizing principle or theory which lends itself to fruitful scientific investigation. At that time, death research, especially those areas focusing on attitudes toward death, appeared "to be influenced, directly or indirectly, from denial theories that postulate a universal 'death anxiety'" (Hood & Morris, 1983. p. 355), which continued to dominate the area "despite repeated failures of investigators to identify such manifest concerns across diverse samples using a wide variety of measures" (Hood & Morris. 1983, p. 355; Kastenbaum & Costa, 1977). Hood and Morris wanted to devise a theory and empirical assessment tool which allowed for a cognitive as opposed to attitudinal approach to the study of death and death transcendence. The DTS is a 23-item paper and pencil measure which operationalizes Lifton's five modes of death transcendence. Four of these modes are described by Hood and Morris (1983) as being primarily cognitive (i.e., beliefs) while the fifth is said to be an experiential/mystical mode. The test constructors add that "the experiential basis of the mystical mode in conjunction with one or more of the basic cognitive modes gives it a special status in which death transcendence is 'experienced' and not merely 'believed'" (Hood & Morris, 1983, p. 357). Alternatively, Hood and Morris (1983, p. 357) describe the cognitive modes as follows:

The four basic cognitive modes are biosocial, creative, religious and the nature modes. Each of these modes provides symbols and meanings for a cognitive confrontation with and hence transcendence of death. For instance, in the biosocial mode, we perceive ourselves to be part of our children, family and other groups, and this provides a continuity to our lives despite our own personal death. Similarly, the creative mode includes work and projects with which one identifies, and this too provides continuities transcending the individual life. The religious mode includes specific religious traditions that provide cognitively meaning-

fill orientations to death. . . . The nature mode involves an identification with natural processes that transcend the particular individual.

Items were written to assess each of Lifton's cognitive modes of death transcendence (i.e., nature, biosocial, religious and creative) as well as his fifth experiential mode of mysticism. The mysticism items were taken from the factor assessing general mysticism on Hood's (1975) M-Scale. Item responses are provided on a four-point Likert scale ranging from 1-strongly disagree to 4-strongly agree. Vandecreek and Nye (1993) state that "scores on each subscale describe the level of investment attributed to them by the respondent" (p. 279).

Using a sample of 587 people, Hood and Morris (1983) examined the reliability and factorial validity of the DTS and found adequate support for both. In terms of reliability, they obtained coefficient alphas ranging from .53 (nature mode) to .75 (religious mode) (average alpha= .62). Alternatively, the results of a principal components analysis (using a quartimax rotation) produced a five-factor solution which corresponds to each of the modes of death transcendence. In addition to the above, Hood and Morris (1983) investigated the relationship of the five subscales of the DTS to measures of related constructs including Spilka's (Spilka, Stout, Minton & Sizemore, 1977) Fear of Death and Death Perspective scales and the measure of intrinsic and extrinsic religiosity created by Allport and Ross (1967). In all cases, the expected relationships were found (e.g., Intrinsic religiosity positively correlated with the Religious, Mysticism and Biosocial subscales and negatively with the Creative and Nature scales; Extrinsic religiosity correlated significantly with the Creative, Nature and Biosocial subscales but not the Religious and Mysticism modes).

In a follow-up study, Vandecreek and Nye (1993) administered the DTS (with three items they constructed which were added to the Biosocial scale) to two different adult samples for the purpose of complementing Hood and Morris' (1983) work with college students. With the first sample, which consisted of 166 subjects, Vandecreek and Nye (1993) performed a principal components analysis using a quartimax rotation to determine if the factor structure of the DTS was robust. An initial analysis resulted in the extraction of eight factors, the last three of which were determined to be insubstantial (only two items loaded on each). Thereafter, the researchers reanalyzed the DTS item scores using a five-factor solution. However, they found that only the first three factors were replications of those obtained by Hood and Morris (1983); the items belonging to the Nature and Biosocial subscales tended to load on more than one factor. In addition, Vandecreek and Nye (1993) calculated inter-item consistency coefficients for the DTS scales and obtained Cronbach's alphas ranging from .55 (Nature) to .84 (Mystical). The mean alpha was .79. Using a second sample of consisting of 132 individuals from a tertiary care hospital and 141 family members in a surgery waiting room, Vandecreek and Nye (1993) performed a second factor analysis using the same procedures and obtained a five-factor solution more akin to Hood and Morris (1983). Coefficient alphas were again calculated for the five subscales (with the three new Biosocial items being included in the analysis). Alphas ranged from .51 for the Nature mode to .79 for the Religious mode (mean alpha= .74). Vandecreek and Nye concluded that the Religious, Mystical and Creative subscales appear to be reliable whereas the Biosocial and Nature modes are more fluid.

Furthermore, they noted that subjects had difficulties understanding the mystical subscale items (especially the negatively phrased ones). Consequently, many subjects did not respond to these items. Alternatively, Vandecreek and Nye observed that the subjects who did complete the mystical subscale items tended to obtain higher mean scores on the DTS subscales, a finding interpreted by them as suggesting that when "mystical experiences occur, they have a lasting effect that creates a strong sense of death transcendence" (Vandecreek & Nye, 1993, p. 283).

The DTS is a relatively interesting measure in its claim on measuring a multifaceted cognitive conception of death transcendence. Following from this, the instrument seems to hold some potential for research focusing on such areas as death-perceptions and near death experiences. However, the evidence in favor of the reliability and validity of the measure appears to be equivocal at best. Thus, until additional psychometric work is done on the scale, investigators should be cautious of their interpretations of DTS subscale scores, especially those scores involving the Nature and Biosocial modes.

Temperament and Character Inventory (TCI; Cloninger, Svrakic & Przybeck, 1993)

The TCI is an instrument designed to assess a seven-factor psychobiological model of personality developed by Cloninger and his colleagues (e.g., Cloninger, 1987; Cloninger, Svrakic & Przybeck, 1993).

This instrument, and the model of personality it is designed to operationalize, first took the form of a three-factor model of temperament which was assessed with a 100-item measure called the Tridimensional Personality Questionnaire (TPQ; Cloninger, Svrakic & Przybeck, 1991). However, based upon the observed limitations of the three-factor model (e.g., Cloninger, Sigvardsson & Bohman, 1988; Sigvardsson, Bohman & Cloninger, 1987; Waller, Lilienfeld. Tellegen & Lykken, 1991), a more comprehensive seven-factor model has been developed which "supersedes models with fewer factors and is formulated to allow differential diagnosis of personality disorder subtypes from one another and from other psychiatric disorders" (Cloninger et al., 1993, p. 976).

The TCI is a 226 true-false item paper and pencil self-report inventory which operationalizes the seven- factor model. Included amongst these items arc 107 items from the TPQ which are used to measure the four temperament dimensions of Novelty Seeking, Harm Avoidance, Reward Dependence and Persistence. Moreover, developed from an initial item pool of 195 items, the TCI includes 119 items used to operationalize the three character dimensions of Self-directedness, Cooperativeness and Self-Transcendence. (Note that the temperament dimensions are generally described as biologically based components of personality which are said to be "independently heritable, manifest early in life and involve preconceptual biases in perceptual memory and habit formation" [Cloninger et al., 1993, p. 975], Conversely, the character dimensions are consciously learned components of personality which "mature in adulthood and influence personal and social effectiveness by insight learning about self-concepts" [Cloninger et al., 1993, p. 975]). All of the TCI

dimensions except Persistence (which was originally thought of as a component of Reward Dependence and is defined as a temperament factor which is a heritable bias that involves persistence despite frustration and fatigue), are comprised of several subscales. Basic descriptions of the remaining six general personality dimensions along with their component subscales are as follows:

1) Novelty Seeking: This temperament dimension "is viewed as a heritable bias in the activation or initiation of behaviors such as frequent exploratory activity in response to novelty, impulsive decision making, extravagance in approach to cues of reward, and quick loss of temper and active avoidance of frustration" (Cloningcr ct al., 1993, p. 977). It is made up of four subscales labelled Exploratory Excitability vs. Rigidity, Impulsiveness vs. Reflection, Extravagance vs. Reserve, and Disorderliness vs. Regimentation; 2) Harm Avoidance: "is viewed as a heritable bias in the inhibition or cessation of behaviors, such as pessimistic worry in anticipation of future problems, passive avoidant behaviors such as fear of uncertainty and shyness of strangers, and rapid fatigability" (Cloninger et al., 1993, p. 977). There are four subscales labelled Anticipatory Worry vs. Optimism, Fear of Uncertainty vs. Confidence, Shyness vs. Gregariousness, and Fatigability and Asthenia vs. Vigor; 3) Reward Dependence: This temperament factor is conceived of as "a heritable bias in the maintenance or continuation of ongoing behaviors, and is manifest as sentimentality, social attachment, and dependence on approval of others" (Cloninger et al., 1993, p. 977). This dimension is made up of three subscales called Sentimentality vs. Insensitivity, Attachment vs. Detachment and Dependence vs. Independence; 4) Self-Directedness: This is a character dimension which "refers to self-determination and 'willpower', or the ability of an individual to control, regulate, and adapt behavior to fit the situation in accord with individually chosen goals and values" (Cloninger et al., 1993, p. 979). This factor is comprised of five components labelled Responsibility vs. Blaming, Purposeful vs. Goal-Undirected, Resourcefulness vs. Apathy, Self-Acceptance vs. Self-Striving and Congruent Second Nature; 5) Cooperativeness: This concerns the "individual differences in identification with and acceptance of other people" (Cloninger et al., 1993, p. 980). Cooperativeness is made up of five subscales defined as Social Acceptance vs. Intolerance, Empathy vs. Social Disinterest, Helpfulness vs. Unhelpfulness, Compassion vs. Revengefulness and Pure-Hearted vs. Self-Serving; 6) Self-Transcendence: This character dimension "refers generally to identification with everything conceived as essential and consequential parts of a unified whole" (Cloninger et al., 1993, p. 981). It is made up of three subscales entitled Self-Forgetful vs. Self-Conscious Experience, Transpersonal Identification vs. Self-Isolation and Spiritual Acceptance vs. Rational Materialism. In the case of the three character dimensions, the subscales are conceived as various aspects of developmental processes which result in the manifestation of these personality traits.

The reliability of the TCI factor scales and subscales has been shown to be adequate, at least in terms of interitem consistency. The seven major TCI scales obtained coefficient alphas ranging from .65 (Persistence) to .89 (Cooperativeness) with a mean alpha of .81. The TCI subscales produced alphas ranging from .47 (Empathy vs. Social Disinterest) to .86 (Compassion vs. Revengefulness). The mean alpha for the subscales was .67 (Cloninger et al, 1993). Alphas of comparable magnitudes were also obtained using a sample of 136 psychiatric patients (Svrakic, Whitehead, Przybeck & Cloninger, 1993)

The validity of the TCI has been examined in terms of its factorial, convergent and discriminant and criterion/predictive validity. In all three instances, support for the instrument has been obtained. For example, in terms of the former, Cloninger et al. (1993) performed two principal components analyses using promax rotation to first examine the structure of the character scales and then to investigate the factor structure of the entire TCI. The first analysis resulted in the extraction of three factors which corresponded to the three character dimensions. In the second principal components analysis, Cloninger et al. (1993) obtained a seven-factor solution which confirmed their seven dimensional model of personality and supported the validity of the seven TCI scales and their corresponding subscales. Turning to convergent and discriminant validity, Svrakic, Whitehead, Przybeck and Cloninger (1993) report data from an earlier unpublished work showing that the NEO-PI obtained strong multiple correlations with all of the TCI factors (multiple correlations ranging from .63 to .83) except for Persistence and Self-Transcendence (multiple r= .36 and .30, respectively). This finding is supportive of the validity of the TCI and especially the Self-Transcendence dimension since the five-factor model of personality does not have any components which address the humanistic and transpersonal aspects of personality (Cloninger et al., 1993). Lastly, as per expectation, Svrakic et al. (1993) found that all of the dimensions of the TCI save Self-Transcendence could be successfully utilized to differentiate between personality disorder clusters/subtypes. Self-Transcendence was found only to negatively correlate with the presence of symptomology for schizoid personality disorder (r= -.23, p<.05).

The TCI is the only major personality instrument currently in existence which explicitly incorporates a transpersonal component. Though additional examinations of its psychometric properties are needed, the measure readily lends itself to research exploring the relationship of personality to spirituality and transpersonal states of consciousness.

Phenomenology of Consciousness Inventory (PCI; Pekala, 1982; Pekala, Steinberg & Kumar. 1986)

The PCI is an instrument designed to assess various dimensions of phenomenological experience. More specifically, the measure is a revision and refinement of the Dimensions of Consciousness Questionnaire (DCQ; Pekala & Wenger, 1983) which is used "to assess phenomenological state effects associated with specific stimulus conditions (e.g., hypnosis, drugs, meditation)" (Pekala, Steinberg & Kumar, 1986, p. 983). The test constructors state that although the DCQ demonstrated satisfactory reliability and validity, a shorter instrument was needed for research purposes.

The PCI is composed of fifty-three items that were taken from a version of the DCQ which was modified to include the four primary emotions of anger, fear, sadness and joy postulated by Plutchik (1980). Items which were retained were kept because they significantly contributed to the homogeneity of the constructs assessed (i.e., they enhanced the internal consistency of the measure). The items of the PCI encompass twelve major dimensions of phenomenological experience including Positive Affect, Negative Affect, Altered Experience, Visual Imagery, Attention, Self-awareness,

Altered Awareness, Internal Dialogue, Rationality, Volitional Control, Memory and Arousal. Furthermore, the first five dimensions contain a number of minor aspects. For Positive Affect these are Joy, Sexual Excitement and Love; Negative Affect embodies Anger, Sadness and Fear; Altered Experience includes Body Image, Time Sense, Perception, and Meaning; Visual Imagery incorporates Amount and Vividness; and, Attention contains Direction (Inward) and Absorption.

Pekala, Steinberg and Kumar (1986) report that two forms of the PCI were constructed using the identical items arranged in different sequences.

The reliability of the PCI has been shown to be satisfactory. For instance, before creating the two forms of the PCI, Pekala et al. (1986) examined the internal consistency of the instrument and found coefficient alphas ranging from .70 to .90 for all the major and minor dimensions (mean alpha for major dimensions= .80). They also obtained an average reliability index of .85 across all subjects who completed the measure. Thereafter, the internal consistency of the two forms was examined using data gathered from subjects under different stimulus conditions who obtained reliability index values of two or less; form 1 produced alphas ranging from .65 to .85 (mean= .76) for the major dimensions and form 2 obtained alpha coefficients ranging between .74 and .85 (mean= .80).

The validity of the PCI has mostly been examined in terms of criterion validity (i.e., its ability to predict differences between stimulus conditions). Pekala, Steinberg and Kumar (1986) found that significantly different PCI scores were obtained by groups of subjects undergoing different stimulus conditions (eyes open, eyes closed and hypnotic induction); similar findings were obtained in an earlier study by Pekala, Wenger & Levine (1985). Moreover, Pekala and Kumar (1984) found that the PCI could successfully predict hypnotic susceptibility. In general, these findings suggest that the PCI is a valid measure which can adequately differentiate between phenomenological states.

Though the PCI could use additional psychometric investigation to provide a better picture of its validity, this instrument seems to show promise for phenomenological research. Walsh (1995) states that the development of quantitative measures such as the PCI is the next step of research to provide a systematic empirical basis for making distinctions between various transpersonal states of consciousness.

Spiritual Well Being Scale (SWBS; Ellison, 1983; Paloutzian & Ellison, 1982)

The SWBS is a measure of spiritual well-being which was created in response to the observation that little attention had been given to the impact of spirituality and religiosity on well-being and quality of life. Based on Moberg's (Moberg, 1971; Moberg & Brusek, 1978) conception of spiritual well-being as a two dimensional construct consisting of a vertical dimension (i.e., "our sense of well being in relation to God"; Ellison, 1983, p. 331), and a horizontal dimension (i.e., "a sense of life purpose and life satisfaction, with no reference to anything specifically religious," Ellison, 1983, p. 331), Paloutzian and Ellison (1982) constructed an instrument which

could be used to investigate empirically the spiritual component of well-being. As Ellison (1983, p. 332) states, "... Paloutzian and Ellison (1979) began development of [the SWBS so as to] provide a general measure of spiritual well-being while not getting bogged down in specific theological issues or a priori standards of well-being which may vary from one religious belief system or denomination to another."

The SWBS is a twenty-item paper and pencil measure which utilizes a six point response scale ranging from 1- strongly disagree to 6-strongly agree. The instrument is divided into two subscales consisting of ten items each which are used to operationalize of Moberg's dimensions of spiritual well-being. The first scale, called Religious Well-Being (RWB), is used to assess Moberg's vertical dimension whereas the second subscale. Existential Well-Being (EWB), is used to measure the horizontal dimension. In order to ensure adequate differentiation between the RWB and EWB items, all of the RWB items contain references to God while the EWB items do not. In addition, half of the items from both subscales are worded in positive and negative directions so as to control response bias (Paloutzian & Ellison, 1982). Scores can be obtained for RWB and EWB by reversing the response values for negatively worded items and summing the item responses. A total Spiritual Well-Being (SWB) score is obtained by summing the RWB and EWB scores.

The psychometric properties of the SWBS have been examined in a number of studies and strong support for its reliability has been provided. The SWBS and its subscales have produced test-retest correlations ranging from .73 to .99 for one, four, six and ten-week retest intervals. Moreover, internal consistency coefficients (alpha) have been obtained which range from .78 to .94 (Brinkman, 1989; Kirschling & Pittman, 1989; Paloutzian & Ellison, 1982).

Alternatively, extensive empirical examination of the validity of the SWBS has resulted in mixed support for the instrument. In support of the measure, Paloutzian and Ellison (1982) claim that the SWBS has adequate face validity as can be demonstrated by an inspection of item content. Evidence of construct validity has been provided through the finding of significant correlations between the SWBS, its subscales and a wide variety of instruments and criterion measures including the Purpose in Life test (see Table 2) (r= .52, .28, .68, p<.001 for total SWBS, RWB and EWB, respectively) and Allport and Ross' (1967) Intrinsic-Extrinsic Religious Motivation scale (r= .67, .79, p<.001, and .19, p<01 for SWBS, RWB and EWB with Intrinsic motivation; r= .26, .26, p<.01 and .15, p<.05 for SWBS, RWB and EWB with Extrinsic motivation) (Ellison, 1983). Moreover, evidence supporting the SWBS as a measure of well-being has been impressive. The instrument and its subscales have been found to correlate positively with "several standard indicators of well-being, including a positive self-concept, finding meaning and purpose in life, high assertiveness and low aggressiveness, good physical health and good emotional adjustment. In contrast, SWBS is negatively correlated with indicators of ill health, emotional maladjustment, and dissatisfaction with life" (Bufford, Paloutzian & Ellison, 1991, p. 57-58).

Despite this supporting evidence, the validity of the SWBS has been seriously challenged for at least two major reasons. First, there is a question as to its factorial

validity. Paloutzian and Ellison (1982) report the findings of an item factor analysis which resulted in the extraction of three factors (using a varimax rotation); the first factor contained all the RWB items while the second and third factors contained the EWB items and were described as reflecting life direction and life satisfaction. Conversely, in detailing the results of the same analysis, Bufford, Paloutzian and Ellison (1991) and Ellison (1983) indicate that three factors were found but report that only two factors were retained, the first of which contained the RWB items and the second which contained most of the EWB items. In all three articles, it is claimed that the obtained results support the validity of the instrument. Ledbetter, Smith, Fischer, Vosler-Hunter and Chew (1991) note that these findings are difficult to interpret because each of the articles, most notably Ellison (1983), report them in an ambiguous manner (e.g., how many factors actually were retained?). Also, Ledbetter, Smith, Fischer et al. (1991) question why a varimax factor rotation was used when Ellison (1983) has postulated that EWB and RWB may be components of a higher order spiritual well-being construct. They argue that if RWB and EWB are indeed aspects of a higher-order factor, then the factor analysis should have used an oblique factor rotation. In light of their critique of the factor structure of the SWBS, Ledbetter, Smith, Fischer et al. (1991) performed two confirmatory factor analyses to test the goodness of fit of both one- and two-factor models. Though they found that the two-factor model explained the SWBS significantly better than the one-factor model, Ledbetter, Smith, Fischer et al. (1991) concluded "neither model provided a good conceptualization of the factor structure of the Spiritual Well-Being Scale.... These results suggest that, contrary to Ellison's two-factor conceptualization and a postulated general factor model, the SWBS may be factorial complex. This complexity makes interpretation of scores ambiguous" (p. 94).

Second, when used with certain subject populations, most notably religious samples, the SWBS has been shown to be limited by ceiling effects such that its ability to differentiate between individuals and samples high in spiritual well-being is compromised (Ledbetter, Smith, Vosler-Hunter & Fischer, 1991). Ledbetter, Smith, Vosler-Hunter and Fischer (1991) assert that "the psychometric implications [of these findings] suggest that previously reported relationships between the SWBS and other variables are underestimated for religious samples. In addition, these results indicate that the clinical usefulness of the SWBS is limited to low scores" (p. 49).

Notwithstanding the problems surrounding the validity of the SWBS (which also includes the problem of a confound between spirituality and religiosity), the instrument has been employed in a relatively large number of studies utilizing subjects from varied populations (i.e., not just religious samples; see Bufford, Paloutzian & Ellison, 1991; Ellison & Smith, 1991) and has found much success. In consideration of the strong connections that the SWBS has developed with the "nomological net" of constructs, the instrument appears have some value to transpersonal research as an "empirically anchored" measure of general spiritual well-being. However, we agree with Bufford, Paloutzian and Ellison (1991) who state that "the scale [is] not useful in distinguishing among individuals for purposes such as selection of spiritual leaders. The scale is useful for research and as a global index of lack of well-being" (p. 56). Thus, investigators using this SWBS should exercise caution in how they interpret its scores, especially with subjects who are judged as being highly spiritual.

TABLE 2 MEASURES OF RELEVANCE TO TRANSPERSONAL RESEARCH NOT DISCUSSED

Name of Measure/Construct Assessed References (Note: First reference is primary)

Mystical Experience Clark & Raskin (1967)

Mystical Experience Davis & Smith (1985); Greeley (1974)

Mysticism Scale Heisler (1975); Lukoff & Lu (1988)

Inclination toward Mysticism Fulgosi (1979)

Mystical Experience Hood (1973a)

Mystical Experience- Psychedelic Pahnke (1963, 1967, 1970); Pahnke & Richards (1969); Experiences Questionnaire Richards (1978); Doblin (1991); Lukoff & Lu (1988)

Experiences of Transcendent Ecstasy Laski (1961); Lukoff& Lu (1988)

Birth Experiences Inventory Vaughan & Maliszewski (1982); Lukoff & Lu (1988)

General Index of Reality Whiteman (1986); Lukoff & Lu (1988)

Life Change Inventory Ring (1984, 1992); Lukoff, Turner & Lu (1993)

Boutell's Inventory for Identifying Nurses' Boutell & Bozett (1990); Lukoff, Turner & Lu (1993)

Assessment of Patients Spiritual Needs

Spiritual and Religious Concerns

Questionnaire

Silber & Reilly (1985); Lukoff, Turner & Lu (1993)

Spiritual Assessment Inventory Hall & Edwards (1995)

Armstrong Measure of Spirituality Armstrong (1995)

Spiritual Belief Scale Schaler (1995)

Spiritual Well-being Questionnaire Moberg (1984); Butman (1990)

Spiritual Perspective Scale Reed (1987); Howden (1992); Lukoff, Turner & Lu

(1993)

Spirituality Self-Assessment Scale Whitfield (1984); Corrington (1989); Lukoff, Turner &

Lu (1993)

Brown-Peterson Recovery Progress Inventory Brown & Peterson (1991); Lukoff, Turner & Lu (1993)

Spiritual Gifts Inventory Hocking (1975); Ledbetter & Foster (1989)

Inventory of Transpersonal Healing Cooperstein (1992)

Transpersonal Experiences in Childhood Hunt, Gervais, Shearing-Johns & Travis (1992)

Dimensions of Meditative Experience

Consciousness I, II and III Scales

Krus & Tellegen (1975)

Zen Scale

Krus & Knis (1978)

Harvard Group Scale of Hypnotic Shor & Ome (1962, 1963); Barren (1989); Hood

Susceptibility (1973b)

Ego Permissiveness Scale; Experience Taft (1969, 1970)

Questionnaire

Absorption Scale Tellegen & Atkinson (1974)

Non-doctrinal Religious Scale Yinger (1969)

Religious Experience Episodes Measure Hood (1970, 1973a, 1973b); Holm (1982); Lukoff & Lu

1988)

Intrinsic-Extrinsic Religious Orientation Scale Allport & Ross (1967); Genia (1993): Kahoe (1974)

Intrinsic-Extrinsic Religious Motivation Feagin (1964)
Religious/Spiritual Beliefs and Experiences James (1904/1987)

Levels of Attribution and Change Scale Norcross, Prochaska & Hambrecht (1985); Norcross,

Prochaska, Guadagnoli & DiClemente (1984)

Ways to Live Scale Morris (1951, 1956)

Christian Life Assessment Scale Smith (1986)

Psychic Experiences Shafer (1982)

Paranormal Beliefs Jones, Russell & Nickel (1977)

Paranormal Beliefs Blum & Blum (1974)

Randall & Desrosiers (1980) Paranormal Beliefs

Paranormal Beliefs Scheidt (1973)

Paranormal Beliefs Killen. Wildman & Wildman (1974) Fear of Death and Death Perspective Scales Spilka. Stout, Minton & Sizemore (1977)

Fear of Personal Death Scale Florian & Kravetz (1983)

Nystul Turning Point Survey Nystul (1993)

Avoidance of Existential Confrontation Scale Thauberger (1976); Thauberger & Sydiaha-Symor

(1977)

Purpose in Life Test Crumbaugh & Maholick (1964, 1969); Crumbaugh (1968, 1972, 1977); Dyck (1987); Meier & Edwards (Note: the citations provided are only a partial listing of studies which use or (1974); Pearson & Shefield (1974, 1975); Reker (1977); Sharpe & Viney (1973); Shean & Fechtmann (1971); evaluate the measure)

Shefield & Pearson (1974); Yamell (1971)

Feelings, Reactions and Beliefs Survey Cartwright & Mori (1988); Cartwright, deBruin & Berg

(1991)

Myers-Briggs Type Indicator⁵ Briggs & Myers (1987); Myers & McCaulley (1985) Singer-Loomis Inventory of Personality⁵ Singer & Loomis (1984); MacDonald & Holland (1993) Jungian Type Survey⁵

Wheelwright, Wheelwright & Buehler (1964); Mattoon

& Davis (1995)

NEO Personality Inventory-Revised⁵ Costa & McCrae (1992)

Personal Orientation Inventory⁵ Shostrom (1964, 1968); Welch, Tate & Medeiros

NOTE: The first reference given for each test is the primary citation providing either the test or a means of getting the test. Additional citations involve the use of the test in research or make mention of the measure in some evaluative capacity.

5: Refer to end note number five.

TABLE 3

SOURCES OF ADDITIONAL MEASURES AND/OR LITERATURE FOCUSING ON THEORETICAL CONSIDERATIONS OF TESTING OR EMPIRICAL FINDINGS GENERATED THROUGH THE USE OF TESTS

Type of Measures/Assessment Issues Discussed Reference

Stoll (1979) Spirituality

Lukoff & Lu (1988) Mystical Experience

Spirituality Lukoff. Turner & Lu (1993)

Spilka, Hood & Gorsuch (1985) Religion/Mysticism Butman (1990) Religious Development Religion. ReligiosityMysticism Silverman (1983)

Wulff (1991) Religion/Religiosity/Religious Experience

General Robinson & Shaver (1973) Robinson, Shaver & Wrightsman (1990) General General Chun, Cobb & French (1975) Goldman & Osbourne (1985) General General Buros (1974) General Mental Measurements Yearbook General Anastasi (1988) Cronbach (1990) General

Messick (1995) General-Validity

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- ² However, whenever we rely on language and language descriptors to devise a theory, phenomenological map or self-report instrument, we must keep in mind that word meanings and usage vary as a function of the cultural and historical context in which the words/descriptors are being used (Collier, Minton & Reynolds, 1991; Derrida, 1976; Gergen, 1985). Moreover, the sample of descriptors used in devising any of the above will directly influence the form and completeness of the theory, map or test (e.g., if a phenomenological map of an experiential state is devised from a sample of 100 child experients vs. 100 adults, it is reasonable to assume that the resulting maps will differ tremendously. In turn, this difference can be attributed in large part to the manner in which subjects from the two samples use language). Consequently, it would seem that differences observed in language descriptors used may or may not reflect objective differences between theories and/or testing instruments.
- ³ By response bias we are including any and all identified response sets and/or styles which may have an influence over the validity of a psychometric measure. This would include faking good, faking bad, socially desirable responding, and deviation. The reader is referred to Anastasi (1988) and Cronbach (1990) for a discussion of this topic.
- ⁴ However, another stance can be taken to the apparent confound between religion and transpersonal constructs in many psychometric instruments. Based on Cronbach and Meehl's (1955) notion of nomological net has any merit, then it can be argued that the meaning of any given test or questionnaire is found not just from the theory on which it was built but equally so from its established empirical relations with other constructs and behaviors which are already a part of the nomological net. Following from this, if a measure shows itself to have many robust relations with other instruments and behaviors, then the meaning of that measure can be reinterpreted in light of such relations. Thus, within the context of this line of reasoning, measures of transpersonal constructs which appear to be confounded with religion/religiosity can be viewed as being as valuable for research as instruments without such a confound, provided that they produce strong and reliable empirical relationships with other concepts, behavior and phenomena which are of interest and relevance to a given research domain. In consideration of this argument and the apparent importance of establishing a nomological net of constructs, we have made every effort to report the correlations between the measures discussed or mentioned in this article whenever the information was available.
- ⁵ These measures have been included not because they assess transpersonal constructs per se, but because they appear to have value for transpersonal research, especially in terms of the relationship of personality (Jungian Type Survey. Myers-Briggs Type Indicator, Singer-Loomis Inventory of Personality, NEO Personality Inventory- Revised) and self-actualization (Personal Orientation Inventory) to various transpersonal practices and experiences.

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BOOK REVIEW

WILBER, K. Sex, ecology, spirituality: The spirit of evolution. Boston: Shambhala, 1995. \$40.00, xi + 831 pp.

For twenty years transpersonal psychology has been indebted to Ken Wilber. Since he published "Psychologia perennis: The spectrum of consciousness" in 1975 in this *Journal*, Wilber has written over a dozen books offering a contemporary rendition of the perennial philosophy found at the heart of the world's great religious traditions. By now his vision is well known. It is based upon the ancient concept of a great chain of being, stretching from matter to spirit and operating at all levels in between. In Biblical lore, Jacob's ladder symbolizes the path of the soul's ascent up the great chain to realize its perfection in God. In Wilber's interpretation, consciousness evolves from matter to life to mind to soul to spirit, from the lesser to the greater, or in the words of the *Upanishad*, "from darkness to light, from the unreal to the real." Throughout his volumes, Wilber traces the common patterns evolution takes at each stage and applies what he sees to fields as diverse as biology and cosmology, anthropology and psychology, sociology and ecology.

Wilber has had detractors. Some say he isn't hard enough on fuzzy-thinking new age theorists; others say his writing is arrogant and overly critical; and still others complain it is too intellectual. Some Jungians and feminists blast his work as patriarchal and abhor its hierarchical theory. There are also those who take him to task for not doing justice to particular fields or for trying to cover too great a territory.

His latest work. Sex, Ecology, Spirituality: The Spirit of Evolution, will no doubt be controversial. In this first volume of a planned trilogy, Wilber explores some of the major ecological, feminist, philosophical, psychological, and spiritual trends of our time. He incisively points out where he thinks they are fractured, half right and half wrong, and articulates an integrated worldview, grounded in nondual spiritual teachings.

Wilber sees his book as "a broad orienting map of the place of men and women in relation to Universe, Life, and Spirit... a chronicle of what you have done, a tale of what you have seen, a measure of what we all might yet become." In this he asks a number of penetrating questions: "How can we become more fully human and at the same time be saved from the fate of being merely human? Where is Spirit in this God-forsaken, Goddess-forsaken world of modernity? Why are we destroying Gaia in the very attempt to improve our own condition? Why are so many attempts at salvation suicidal? How do we actually fit into this larger Kosmos? How are we whole individuals who are also parts of something Larger?" In addressing these questions, I think Wilber succeeds admirably. Sex, Ecology, Spirituality is a towering achievement.

It is also overwhelming in size. As if anticipating a reader's reluctance to jump into a volume of over 800 pages, Wilber gives suggestions on how to read it. Take one sentence at a time, he says, and leave the footnotes (which take up a third of the

book) for a second time around. I took Wilber's advice and found the book accessible and a pleasure to read.

"This is a book about holons," the author writes in his introduction. Borrowing this term, which I find curiously mechanistic, from Koestler, Wilber defines a holon as a "whole/part." He says, "Reality is composed not of things or processes nor wholes nor parts, but of 'whole/parts.'" Holons, then, are wholes that are parts of other wholes, all the way from inchoate matter to highest spirit. This is true of the outer, physical, and social world, as well as the world of the psyche, of atoms and cells, of symbols and ideas, in the microcosm and macrocosm, in individuals and societies.

In the book's early chapters, Wilber discusses holons in the physical cosmos (the "physiosphere" and the "biosphere"), where he makes use of the natural, ecological, life, and systems sciences to discuss biological evolution and the ecological crisis. Then he considers holons that constitute mind or psyche (the "noosphere"). Finally, Wilber discusses holonic evolution in the "theosophere," the domain of the Divine. His articulation of mysticism and how evolution is fundamentally grounded in Spirit is the most inspiring aspect of the book.

Wilber says that a holon, whether biological, mental, or spiritual, displays a number of basic characteristics. Each is defined by its own distinctive pattern of being; each adapts itself to other holons and to the whole of which it is a part; each has the capacity to transcend itself and become a greater whole, which in turn is a part of an even greater wholeness; and each holon can ultimately dissolve and break down.

He also asserts we cannot have wholeness without hierarchy, defined simply as a ranking of holons according to their holistic capacity. Each holon, or level in a hierarchy, represents an increase in wholeness and integrative capacity over its predecessors. Evolution takes place as new holons emerge hierarchically. In each hierarchy, or series of increasing whole/parts, each emergent holon (the "senior," let us say) negates the particularity and exclusivity of its junior, but embraces the junior's pattern and includes it in a larger pattern distinguished by the senior's own laws of being. For example, in the noosphere, as the mental-ego (a holon) emerges with its capacity for rational thinking (its pattern or code) it negates the exclusivity of mythic thinking (its junior holon), but includes the mythic structure within its (the mental-ego's) own pattern of capacities.

Wilber takes great pains to answer critics of hierarchical theories by distinguishing between actualization and pathological hierarchies. Actualization hierarchies function to maximize the fulfillment of an organism's potential. When the "senior" holon emerges, it is one step further in the unfolding of the organism's inherent pattern. By contrast, in a pathological or "dominator" hierarchy, the senior holon assumes an arrogant, repressive, oppressive role of dominance over other holons in the hierarchy, so that development comes to a standstill. This is an important distinction which has far-reaching implications for sociocultural concerns as well as for the development of psychopathology in individuals.

Another important aspect of Wilber's worldview is that evolution has directionality—"increasing differentiation, variety, complexity, [autonomy], and organization." Wilber shows that the entelechy of a holon—its regime, canon, code, deep structure, what the late philosopher Dane Rudhyar called the "seed-pattem" of an organism and what in human beings C.G. Jung called the archetype of the Self—"acts as a magnet, an attractor, a miniature omega point, for the actualization of that holon in space and time." This means that a holon's evolution is guided by *tel os*; it has an end point which represents the fulfillment of its intrinsic potentialities. Wilber illustrates his meaning by repeatedly referring to the inherent code or seed-pattern of an acorn, "which has oak written all over it." Processes of development will unfold—hierarchically, in stages—until the acorn becomes a tree.

In Part I, Wilber traces the evolutionary "path of ascent" from "acorn to oak." He traces this path historically from humanoids to postmodernism, and psychologically from infancy through the development of the mental-ego to transegoic levels of consciousness. Along the way he addresses morality, gender relations, ecological issues, and the present world crisis. In Part II, he describes a second activity, "the path of descent," drawing upon the Western canon of Plato and Plotinus, among others. Evolution up the ladder has a complementary movement in which the One Self becomes the Many and the world is directly apprehended as an expression or an embodiment of the One. Reality is nondual, claims Wilber, echoing the great contemplative sages, both East and West.

Readers familiar with Wilber's earlier books will recognize this as a major development in his thinking. Previously he mapped in great detail the path of return from the Many to the One, which culminates, first, in the realization of Spirit *transcendent* to self and world, then in a final transformation in which "the entire World Process arises, moment to moment, as one's own Being," outside of which nothing exists. Many readers inaccurately thought he was advocating an aloof, transcendent goal that denied earthly realities. Now he eloquently writes on the "descent of the One into the world of the Many, a movement that actually creates the world of the Many, blesses the Many and confers Goodness on *all* of it: Spirit *immanent* in the world." In this he resembles a Taoist philosopher who recognizes both spirit and matter as inseparable manifestations of the One Life. Nothing is so meager or inconsequential as to be other than the One. Every atom and molecule, every precious stone, even the ugliest and most repulsive of things and creatures, can be directly experienced as tangible manifestations of the intangible, unchanging Tao. This is an important development in Wilber's thinking.

According to Wilber, the mess humankind is in today is largely based on a conflict between people who subscribe rather exclusively to *distorted* aspects of either the path of ascent or the path of descent. Rather than recognizing both paths as parts of one integral process with two distinct currents (ascending and descending), each is taken exclusively and becomes a partial worldview. People who distort the path of ascent arc called "ascenders." They want to evolve up the great chain, not to include but to negate the realities of the earlier stages. In contemporary Western culture, for example, rationality is the goal of development, magic and mythic attributes are repressed, and transpersonal potential beyond the mental-ego is looked upon with outright mistrust. Ascenders with a religious orientation want to transcend the earthly plane and find another—heaven, nirvana, *Brahmaloka*—where they will enjoy eternal release from the limitations of the world, the flesh, and the devil. Their

counterparts, the "descenders," are generally the materialists who believe this world is the only world there is, the hedonists who want to satisfy their physical and emotional desires and ambitions solely to feel good, and the pantheists who believe divinity is immanent in all living creatures, but deny divinity transcendent to form. As Aurobindo wrote, the ascending trend gives rise to the "refusal of the ascetic," the descending trend to the "materialist denial."

According to Wilber, the world has been dominated by the descenders for centuries, but ascenders, with their distaste for the body and denial of the shadow, have harmed culture and the environment far more. The disastrous consequences of splitting ascending and descending processes, and the ways in which the two are brought together in what Wilber calls the "nondual Heart," constitute Part II of the book.

In *Sex, Ecology, Spirituality,* Wilber's psychology remains a huge, overarching edifice assembled from building blocks provided by Freud, Jung, Piaget, Mahler, and others, all nested within the worldview of the perennial philosophy. As in the past, his theory tends to be overly stratified, giving the impression that levels of development are clear cut, each level giving rise to a distinct form of psychopathology and requiring a distinct treatment modality. Experienced psychotherapists may be hard pressed to accept this without reservation.

After all, the fundamental aim of depth psychotherapy is not to understand a client's experience within a grand metapsychological framework, or to impose a developmental level on the client from some position assumed objectively correct by the therapist. The aim, as psychoanalyst Robert D. Stolorow put it, is to support the unfolding, illumination, and transformation of the client's subjective world from within the perspective of the client's subjective frame of reference. Analysts seek to bring awareness to the principles that unconsciously organize their clients' view of their world and of themselves in that world.

Analysts do this within an analytic relationship. The client's intrapsychic experience can only be understood within the context of the larger interactional system in which it first developed and now unfolds in the analytic encounter. Therefore, the therapist's own unconscious is implicated in everything he or she says or does not say, in the interventions he or she makes, and the client's responses to them. Because depth psychotherapy concerns living, embodied experience—in the client, in the therapist, and in the relationship between them—clearly its metapsychology must be *experience-near*, based upon what actually emerges in the analysis. By contrast, Wilber's theory comes across as *experience-distant*, as much so as Freud's metapsychology of drives.

Despite these objections, I believe Wilber's vision has important clinical implications. After all, every psychotherapist uses some explanatory system to organize clinical material, and hopes that the system is comprehensive enough to encompass a broad range of human experience. Yet, most systems are not. Wilber's model, at least in its outlines, if not in its structural details, clearly is.

What Sex, Ecology, Spirituality offers clinicians is an overarching picture of the path taken by the dynamic, creative energy fueling evolution. This is the tantric yogi's

Shakti, Jung's Libido, and Wilber's Eros. It is a power that takes a path to free itself of worn out, limiting, unconscious self-concepts and worldviews, by unfolding deeper, more encompassing ones. This path leads ultimately to the realization of pure being and consciousness, distinct from all structures of identity and all worldviews, yet manifesting as creation. In other words, psychological growth and healing appear to follow an archetypal pattern inherent in the psyche, which has as its purpose the unfolding of deeper, more encompassing structures of selfhood, ever greater insight into the nature of being, and ever greater empathy and compassion for others. The therapist tries to understand, first and foremost, the direction in which the psyche's evolutionary energies are heading and to align him or herself with that thrust. I think analysts need to contemplate principles such as these whether or not they buy into all of Wilber's levels, categories, and treatment strategies.

As an analytical psychotherapist, I admire Wilber's capacity to discern the dust of spiritual half-truths from the grain of timeless mysticism and clear-headed science. Jungian perspectives on spirituality, for example, are opened up and clarified by Wilber's critical eye. Wilber has the charism of spiritual discernment found in Christian and Buddhist contemplatives, who help seekers differentiate the powers that impel them toward God from powers that lead them astray. He makes trenchant distinctions between, say, magic and mythic structures of consciousness and genuine mystical states, which Jungians (and others) have often conflated.

However, I do not fully agree with Wilber's understanding of Jung's archetypal theory. Wilber criticizes Jung for putting archetypes at the beginning of evolution and associating them with instincts (this is only true of Jung's early writings). Wilber puts them at the end of evolution, guiding humankind upward to the realization of formless Spirit. My understanding is that archetypes are innate structural predispositions that are definable only in terms of ordering principles, never in terms of specific content. As such, they transcend time and space altogether and subsume the entire process of biological and psychological evolution rather than sitting at either the beginning or the end. Archetypes, while manifesting in consciousness as experiences, images, affects, and ideas, are fundamentally the forms or patterns behind phenomena, from matter to body to mind to soul, but not to absolute Spirit, for Spirit transcends all archetypes. For example, it is possible to trace prepersonal, personal, and transpersonal expressions of many archetypal principles, such as the archetypes of the Great Mother and Royal Father.

I also believe some of Jung's archetypal images are symbols of subtle superconscious qualities, such as wisdom and compassion which arise in dreams and visions as a mental response to either the presence or the possibility for the emergence of the quality into conscious awareness. As I see it, the task of a Jungian analyst is to emphasize the quality and to help the client use its symbolic forms as doorways to experiencing and embodying that quality. This is a different process than becoming overly involved in intellectually deciphering the historical, mythological, and religious meanings of the symbol, which some classical Jungian analysts have tended to do.

Wilber also says that Jung did not differentiate between prepersonal, undifferentiated, infantile oneness and transpersonal wholeness. However, in his alchemical

writings, Jung clearly distinguished between the *prima materia*, or the "original matter" and instinctual foundation of life, and the *coniunctio*, symbol of the sacred marriage between ego and Self, What Jung called individuation is an evolutionary process of first unfolding the potentiality of the ego out of the *prima materia*, then supporting the ego's *unio mystica*, or mystical union, with the Self.

There are other important differences between the more heaven-oriented spirituality of Wilber and the earthy spirituality of Jung. Jung is probably more representative of the path of descent, of spirit immanent in the creation, whereas Wilber may be seen as a voice for the way of transcendence. Jung was a sensual, pragmatic man whose hands were in the soil, who frankly mistrusted spiritual philosophies which emphasized pure being and awareness and which appeared to be aloof and detached from life. He preferred chthonic, worldly spirituality and soulful relationships, and possessed the artistry of a stonecutter and sculptor rather than that of a meditator in the rarefied air of mountain peaks. He preferred the mystery of the Incarnation, of God becoming man, rather than the mystery of the Ascension, of man rising up to heaven. Wilber might say both are partial worldviews, and he would be right. In this sense, Wilber's current thinking goes beyond Jung's in beginning to develop a Taoist psychology which emphasizes both creative heaven and receptive earth.

Wilber's model may be essential for clinicians whose clients are involved in spiritual practice. He makes it clear one can have peak experiences while at the same time being riddled with psychological complexes. Implicit in Wilber's model is a distinction between *experiences* of transcendence and *locus of identity* at those higher levels. We may open to transpersonal dimensions while at the same time being identified with mythic and mental-egoic structures of consciousness. Unless we become aware of the degree to which psychological complexes from earlier stages of growth can influence spiritual development, we may use contemplative practice as a defense against the shadow, and remain neurotic and only partly enlightened.

Wilber's notion that "increasing development = increasing interiorization = increasing autonomy = decreasing narcissism" is an area for further investigation. While I agree in principle, many meditators with whom I conduct therapy convince me that only gross forms of narcissism are eliminated at early stages of spiritual practice. Increasingly subtle forms of narcissism can emerge as one practices meditation. Just the notion of perceiving oneself and others within a hierarchical framework of consciousness-evolution, with some individuals being "higher" and more evolved than others, is riddled with potential for narcissistic thinking. If we agree with contemporary psychoanalysts Stolorow and Lachmann, who in Psychoanalysis of Developmental Arrests (1980, International Universities Press) define narcissism as any activity, mental or otherwise, that serves the function of maintaining the cohesiveness, stability, and positive affective coloring of the self-representation, then it is clear narcissistic activity can operate in spiritual life as long as there exists a self- or object-representation with which one is identified. As Wilber shows in his model, it is only in the "causal" and "nondual" realms, in which "there is nothing that is not the Self," that the subtlest images of self and world are finally laid aside and the separation between soul and God completely breaks down. Then one knows oneself as pure nondual Spirit, at one with all that is, beyond all mental images, gross

and subtle. Chögyam Trungpa, Rinpoche pointed out how the ego can turn anything, including spirituality, to its own advantage. Unless one's locus of identity is causal, such as that of the world's great sages, spiritual activity can become a means to buttress increasingly subtle self-images, to make one feel permanent and "higher" and special. Because there are subtle self-representations at advanced stages, the potential for inflation at these stages can be far more pernicious and tricky to handle.

Wilber's gifts as scholar, thinker, and writer are reaching maturity in *Sex, Ecology, Spirituality*. He is gifted with what he calls "vision-logic," a "higher order synthesizing capacity" in which one sees networks of relationships and how different perspectives fit together into a comprehensive whole. Wilber's mind acts as a lens through which the physical, natural, and human sciences are synthesized around the theme of a deeper spiritual order behind our everyday consciousness and the world of appearances. And while Wilber's scholarship is astonishing (according to his close associates he studied a thousand books to write this volume), my impression is that his mind is more closely integrated with his heart than in previous writings. It appears he has used recent, well-publicized events in his life—the illness and death of his wife, Treya—to open himself to a greater *coniunctio* between heaven and earth, insight and compassion, ego and Self in his own consciousness. I look forward to volumes two and three.

Bryan Wittine

BOOKS OUR EDITORS ARE READING

MILLER, M.E. & COOK-GREUTER, S. (Eds.). Transcendence and mature thought in adulthood: The further reaches of adult development. Lanham, MD: Rowman & Littlefield, 1994.

... Marcie Boucouvalas

Ching, Yu-ing. Master of love and mercy: Cheng Yen. Nevada City, CA: Blue Dolphin, 1995.

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ABSTRACTS

FLIER, LEN. Demystifying mysticism: Finding a developmental relationship between different ways of knowing.—This essay attempts to build a bridge between reason and mysticism using the constructive-developmental psychology of Robert Kegan. Extending and broadening the work of Jean Piaget, Kegan has defined five qualitatively distinct structures (or orders) of consciousness. This article proposes that the relationship between reason and mysticism is fundamentally a relationship between successive orders of consciousness and that mysticism is represented by Kegan's *fifth* order of consciousness. Kegan's model also suggests that the sequential expression of orders of consciousness occurs not so much by a process of direct development as by a process of *evolution*. It is proposed here that the force which drives the evolution of consciousness is *moral conflict*, and that each successive order of consciousness evolves as a transcendent solution to an irresolvable conflict in an order of consciousness that is being outgrown. Transcendence to fifth-order (or mystical) consciousness, far from being mysterious, is simply the fifth in a series of transcendent solutions which depend not on genes or acquired knowledge, but on an individual's capacity to suffer moral conflict, as determined by his *moral integrity* and *transparency*.

LUKOFF, DAVID, LU, FRANCIS, TURNER, ROBERT & GACKENBACH, JAYNE. Transpersonal psychology research review: Researching religious and spiritual problems on the Internet.—The Internet is a tremendous resource for researchers. It can be used to access the libraries of the world, send e-mail to, dialogue with, or even collaborate with distant colleagues in academia, download extensive bibliographies on virtually any topic, keep abreast of current research, and get information about professional organizations and publications. This Research Review article explores the value of the Internet for transpersonal psychology by conducting illustrative searches of the Internet for resources germane to religious and spiritual problems. Searches of the World Wide Web, newsgroups, online library catalogs, and several online reference databases demonstrate the value of the Internet for both transpersonal clinicians and researchers.

MACDONALD, DOUGLAS A., LECLAIR, LAURA, HOLLAND, CORNELIUS J., ALTER, AARON & FRIEDMAN, HARRIS L. A survey of measures of transpersonal constructs. — This paper presents the results of two extensive literature surveys focusing on measures of transpersonal constructs. In particular, after overviewing the benefits and caveats of testing for transpersonal psychology, the article discusses in detail twenty tests which show promise for use in transpersonally-oriented research. Thereafter, a listing of fifty-four additional instruments and their sources are provided. It is the hope of the authors that this paper will serve as a resource for researchers in the transpersonal domain.

WILBER, KEN. An informal overview of transpersonal studies. — Transpersonal studies is a multimethodological and multi-tradition approach to a comprehensive overview of human consciousness and behavior, including psychology, sociology, theology and metaphysics, and philosophy. This overview creates an interpretation in which interior and exterior approaches intersect with individual and collective approaches, resulting in four domains which permit a dynamic characterization of various disciplines, paths and systems, and their interactions. The author concludes that the approach of transpersonal studies honors the entire spectrum of consciousness, not just separated "I," 'Ve," or "it" domains, and integrates art, morals, and science; self, ethics, and environment; consciousness, culture, and nature; Buddha, Sangha, and Dharma; the beautiful and the good and the true.

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